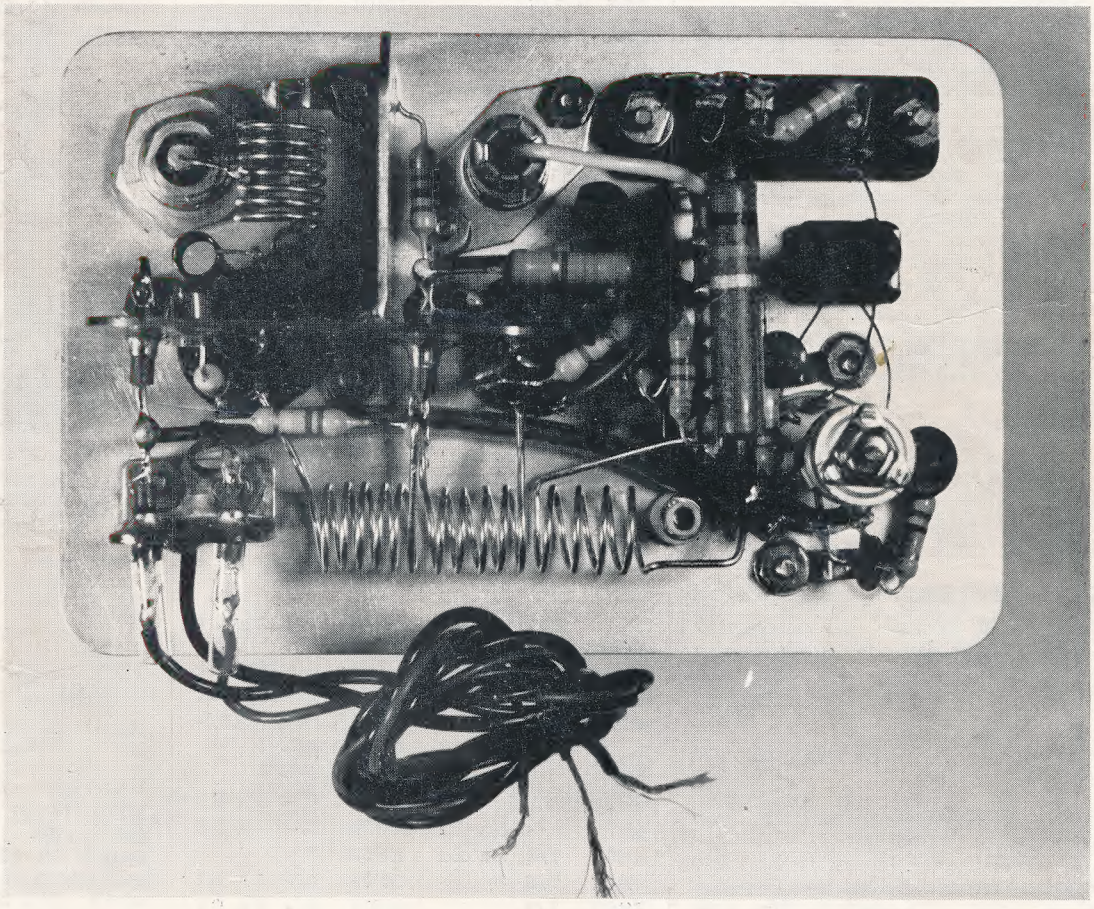
AMATEUR RADIO

NOVEMBER 1962



Vol. 30, No. 11

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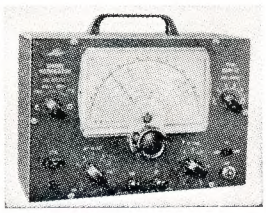

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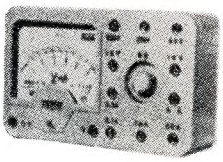

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OUR COVER

The under-chassis view of the Simplified High-Performance Two-Metre Converter, the technical article of which commences on page 2.

FEDERAL COMMENT

★

YOUTH RADIO CLUBS

In recent years, membership of the Divisions of the Institute has grown at a lower rate than the overall growth of licensees in the Commonwealth. Several Divisions, but notably the New South Wales Division, has always possessed a good number of associate members to swell their total membership. This has not occurred by accident, but by a continuing process of encouraging new blood into W.I.A. affairs.

It has been the policy of the Institute for a number of years to form clubs in appropriate centres—say in Police Boys' Clubs and the Boy Scouts' Organisation—to create interest in Amateur Radio among the youth of the nation. At the Convention in Perth earlier this year, the New South Wales Division put forward detailed plans for the formation of radio clubs in schools, particularly high schools. The plan suggested taking the young enthusiasts through a series of proficiency tests with merit certificates awarded at each stage of their advancement in Amateur Radio.

Federal Council agreed that this plan should be implemented in all Divisions at the earliest possible time, and to this end, the N.S.W. Division has since supplied the full details to each Division for their use. The highest praise must be given to the N.S.W. Division for their great effort which has already been discussed with and accepted by the Education Department in their State. There are already a number of such radio clubs functioning in New South Wales, under the Division's guidance, and even at this early stage in their development, are achieving outstanding results.

The technological advantages of such a nation-wide plan are obvious and should on this account alone receive the fullest co-operation of Government authorities; but perhaps a less obvious advantage is the sociological aspect of the scheme. The promotion of a healthy interest in a worthwhile hobby such as Amateur Radio must eventually have some effect to lower a growing delinquency rate, and in this sense, receive even greater support from everyone interested in the future welfare of our younger generation.

It is therefore with the strongest possible motives that we urge every Division to put this scheme into operation immediately—there are many organisations available apart from high schools who would no doubt welcome such a plan—and promote activity by the formation of special groups if necessary to handle the programme. In the meantime, the Federal Executive is already pursuing this matter and you will hear more of this in the ensuing months. The culmination of a united effort by Divisions will not only be to assist the nation in a technological and sociological way but to indirectly help the W.I.A. in the resulting membership increase.

FEDERAL EXECUTIVE, W.I.A.

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Simplified High-Performance Two-Metre Converter

W. M. RICE, VK3ABP*

THIS converter has been developed in several respects from that described by the VK2 V.h.f. Group some years ago in "Radio, Television and Hobbies" and usually referred to (in VK3 anyway) as the "R. & H. Converter". However, with apologies to its originators, I feel it has been improved a good deal by re-design along the following lines:—

(1) Smaller chassis (3¼" x 5" minimum).
(2) Much simpler shielding layout.
(3) No "hot" feedthroughs or components above chassis.
(4) 6ES8 r.f. stage in series cascode (saves h.t. current).
(5) Oscillator inductively coupled into mixer circuit.

The circuit of the converter is shown in Fig. 1. Apart from the inductive coupling, other points are the use of neutralising on the r.f. stage grounded cathode section (as in the original converter), but being a series cascode circuit the adjustment of neutralisation is rather different.

The inductive feedback type of overtone oscillator is retained, although I have heard of quite a few constructors having trouble here with the original circuit and changing it to the "Robert Dollar" type. Please yourself on this point, but the original circuit has functioned perfectly in at least half a dozen converters with which I am acquainted.

CONSTRUCTIONAL DETAILS

Much of the layout of the converter will be apparent from the under chassis photograph (Fig. 2), while the side view (Fig. 3) shows the top chassis arrangement. An aluminium chassis is satisfactory, as no soldering to it is necessary.

The layout is not very critical apart from r.f. and mixer socket orientation and placement of some of the by-passes. The mixer socket is right in the centre of the chassis, while the r.f. stage is on the longitudinal centre line and about 1⅜" centre to centre spacing from the mixer. A shield 1½" deep (ordinary tin-plate is quite satisfactory) runs across the centre of the r.f. socket and ends at the centre spigot of the mixer socket. It is soldered to the centre spigots of both sockets and suitably notched so that its edge butts against the chassis surface.

Solder lug under the socket mounting nuts (or brackets bent out from the shield edge) provide earthing for the shield at both sides of the r.f. socket and one side of the mixer socket. Slots cut in the shield accommodate pins 4 and 9 of the r.f. socket and pin 4 of the mixer socket, these pin contacts being soldered to the shield.

A feedthrough capacitor close to the outer side of the r.f. socket takes heater voltage through to pin 5 on the r.f. socket, while a ¼" hole in the shield permits L3 (inside a spaghetti sleeve) to pass through from pin 6 to pin 3.

* 54 Maidstone St., Altona, W.18, Victoria.

• Here is a unit to suit the Amateur who needs a converter. The article and photos will assist to make construction simple.

Another shield at right angles to the first helps to enclose the aerial coil L1, and just to the right of the shield junction (in the photograph) are the two feedthroughs (one above the other) which anchor the "earthy" ends of L4 and L5; the L5 feedthrough being nearer the chassis.

Placement of other parts is "according to taste" providing that pin 6 of the oscillator socket is conveniently handy to the end of the multiplier output coil L6. The 0.5-3 pF. ceramic trimmer must also be close to pin 6.

A six-lug tag strip runs across the chassis between oscillator and mixer sockets, a free lug at the oscillator end providing a tie point for the h.t. end of L6, which should be by-passed back to pin 7 or 8 and thence to earth via a solder lug under the socket mounting nut.

The screen by-pass on V3 goes to a lug under the adjacent mounting nut. All other by-passes connect either to the appropriate socket centre or the tin shields, using the shortest possible leads.

The 3-30 pF. Philips trimmer (oscillator plate circuit) has its spindle soldered to the centre spigot of the oscillator socket (which is of course earthed).

One final point, not too well observed in the unit photographed, is that the bracket carrying the lower input feedthroughs should not obstruct access with a tuning wand to the end of the interstage coils L4 and L5. Clearance should be allowed around the chassis edges to fit the whole unit into a shallow box—1¾" is suggested as a suitable depth, as this will then just clear the Philips trimmer, which is the item projecting farthest beneath the chassis.

ALIGNMENT

If the coils are all wound exactly to the specifications of Table 1 the converter should perform reasonably well with only two adjustments. The 3-30 pF. trimmer is set to the third overtone (as evidenced by a drop in h.t. current and a rise in noise output from the i.f. receiver) and the ceramic trimmer is then peaked for maximum noise output, i.e. maximum oscillator injection at the required frequency.

The recommended i.f. is anywhere from 2 Mc. up to perhaps 20 or so (depending on the receiver used to tune it). The converter illustrated (and several others) uses a 7890 Kc. crystal (a popular disposals frequency) which on the sixth harmonic of its third overtone comes out at a shade over 142 Mc., converting 144 to 148 Mc. to an i.f. of just under 2 to 6 Mc. Alternative crystals for other i.f's. are listed in Table 2.

More refined alignment checks may be carried out once a 2 metre signal has been located. Use a tuning wand (one end iron slug, other end brass) to establish whether L1, L4 or L5 need a reduction or increase in inductance to peak the signal. L1 will be found very broad, but some experimenting with the aerial tapping point may be worth

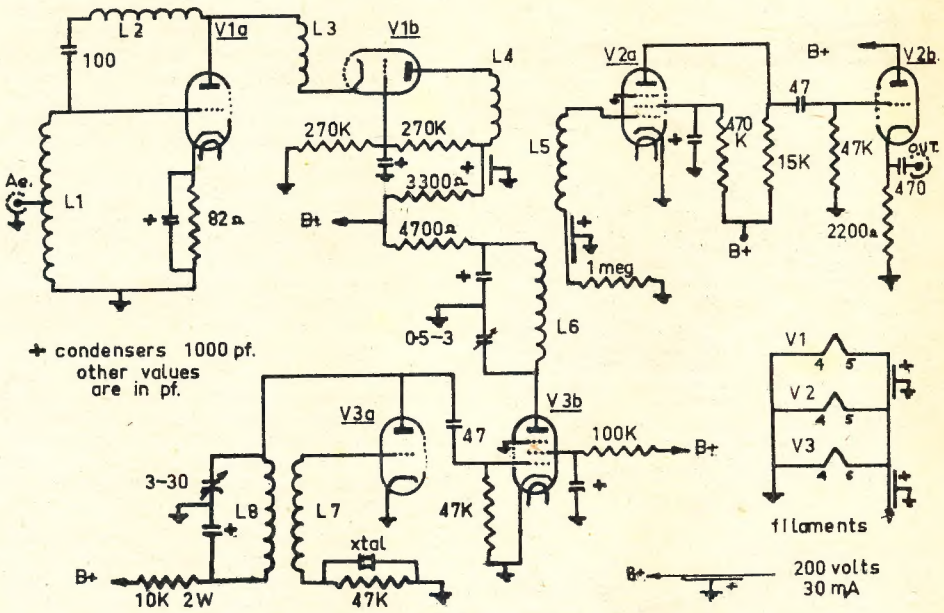


Fig. 1.—Circuit of the Two-Metre Converter.
V1, 6ES8, cascode r.f.; V2, 6BL8, mixer-cathode follower; V3, 6BL8, osc. multiplier.

while, although only a noise generator will show it usually! L4 and L5 are each fairly sharp and should be stagger tuned slightly to preserve somewhere near constant gain at least from 144 to 145.5 or 146 Mc. L3 is very broad indeed and should need no adjustment.

COIL SPECIFICATIONS

Coil	Function	Details
L1	Aerial	7 turns ⅜" diam., ½" long, 18 s.w.g. tinned. Tap 4 turns from earth end.
L2	Neutralising	12 turns 3/16" diam. 26 s.w.g. enamel, close-wound.
L3	Peaking	10 turns ⅛" diam., 26 s.w.g. enamel, close-wound.
L4	R.f. plate	6 turns ⅜" diam., ⅝" long, 18 s.w.g. tinned.
L5	Mixer grid	5 turns ⅜" diam., ⅝" long, 18 s.w.g. tinned.
L6	Multiplier plate	4 turns ⅜" diam., ½" long, 18 s.w.g. tinned.
L7	Osc. grid	8 turns 5/16" diam., 30 s.w.g. enamel, close-wound.
L8	Osc. plate	16 turns, 5/16" dia., 30 s.w.g. enamel, close-wound, spaced 1/16" from L7 on same former, with plate and grid at opposite ends.

Note: L4, L5 and L6 are mounted end to end on the same axis with about 1/16" spacing between adjacent ends.

Table 1.

The neutralising coil L2 will only need adjustment if you are after the best possible noise figure. Some improvement may be possible here by adjustment on a weak 2 metre signal, but a noise generator is really the only satisfactory device to ensure optimum results.

PERFORMANCE

Several of these converters have been built and checked out on good quality test equipment. Without any adjustments at all apart from the oscillator trimmers noise figures as low as 5 db. have been measured. (Noise figure is the ratio of the noise output of the device under test to the noise output of an identical but perfect device at the same temperature).

As far as 2 metre converters are concerned anything under about 8 db. is acceptable, 4 to 5 db. good, 2 db. about the best attainable with present day valve techniques. With a "bit of fiddling" it is possible to obtain a 3 db. noise figure from this converter.

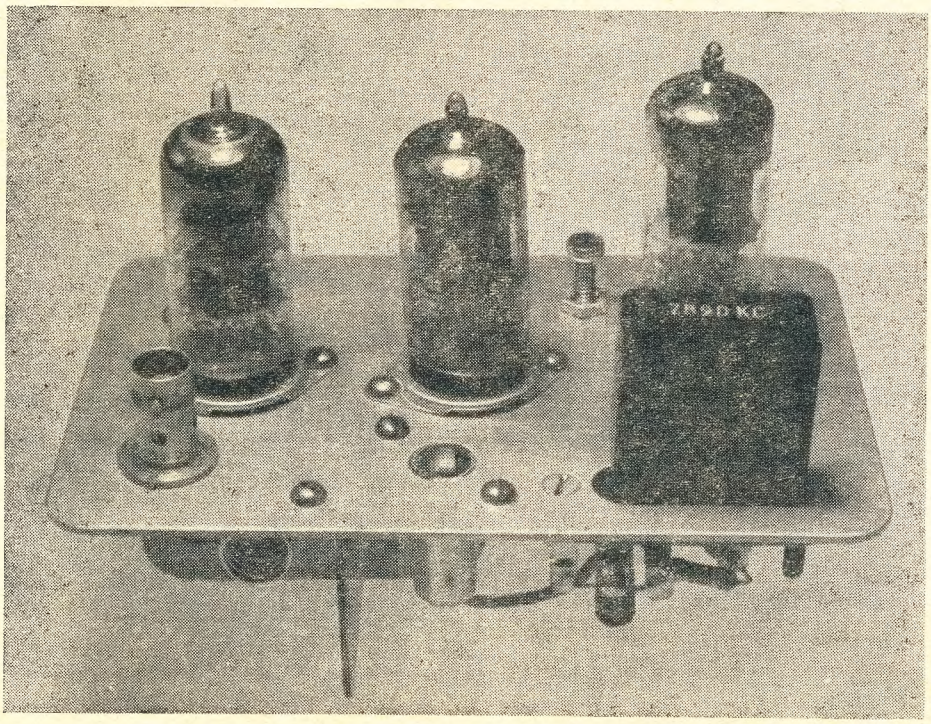
It is possible that when the r.f. stage noise figure has been optimised, the mixer noise may become the limiting factor. This seems to vary quite considerably from one 6BL8 to another, but can in any case be reduced by reducing the screen voltage, i.e. increasing the screen dropping resistor. The original VK2 converter used a 100K resistor here—this is in most cases too low. The 470K shown is a good compromise but may be increased to several megohms providing the attendant loss of gain can be tolerated.

Finally, if you have access to a good signal generator with low leakage and an accurate attenuator, you will probably find that still more external attenuation is needed to reduce the signal to an inaudible level. (A shielded room would also be required.—Ed.) On a good converter, one-tenth of a microvolt modulated 30% should be quite a good signal. One hundredth of a microvolt is detectable on this converter. Who could want better? ●

CRYSTAL FREQUENCIES FOR VARIOUS INTERMEDIATE FREQUENCIES

I.F. for 144 Mc.	Crystal Frequency Using 3rd Overtone × 6	Crystal Frequency Using 3rd Overtone × 7
2 Mc.	7889 Kc.	6762 Kc.
3 Mc.	7833 Kc.	6714 Kc.
4 Mc.	7777 Kc.	6666 Kc.
5 Mc.	7722 Kc.	6619 Kc.
6 Mc.	7666 Kc.	6571 Kc.
7 Mc.	7611 Kc.	6524 Kc.
8 Mc.	7555 Kc.	6476 Kc.
10 Mc.	7444 Kc.	6381 Kc.
12 Mc.	7333 Kc.	6286 Kc.
14 Mc.	7222 Kc.	6190 Kc.
16 Mc.	7111 Kc.	6095 Kc.

Table 2.



Top view of the Two-Metre Converter. The under-chassis view is shown on the front cover.

COPY DATES

Readers and Correspondents are reminded that with the approaching Xmas holidays, the following dates will apply to the December 1962 and January 1963 editions of "Amateur Radio."

All matter for inclusion, including Hamads, must be received by these dates:

December "A.R.," by 8/11/62

January "A.R.," by 1/12/62

Late matters will appear in February "A.R.," which will be distributed a little later in that month.

OBITUARY

T. ARTICLE

T. Article, a contemporary of Marconi, was well known throughout the Amateur world. His many contributions gave every Amateur that step towards progress. Tech, as he was known, was a prominent contributor to "A.R.," and all readers will join with the Publications Committee in regretting his passing, and hope that all Amateurs will contribute to his last offering.

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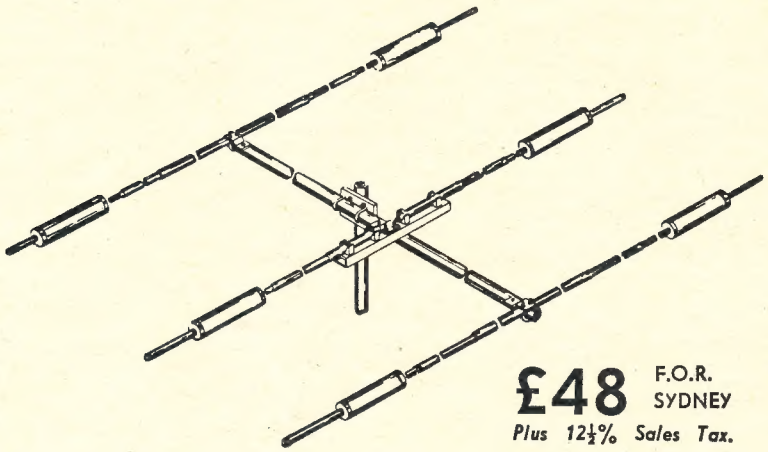

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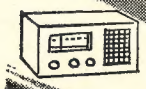
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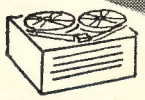
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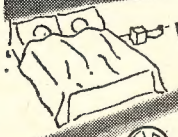
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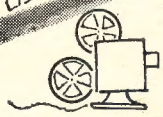
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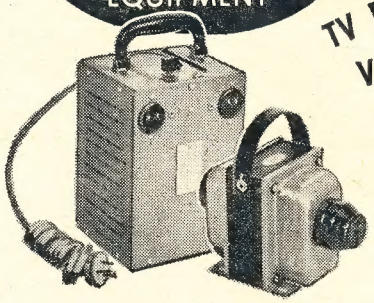

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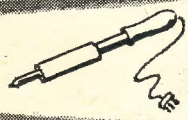
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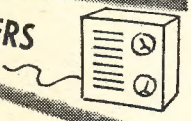
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A TRANSISTOR POWER SUPPLY*

Battery Substitute for Transistor Circuits

GEORGE GRAMMER, W1DF

IN Ham circles the words "transistor power supply" are usually taken to mean a modern substitute for the vibrator supply. This one isn't. It's an a.c. line powered supply for transistors.

One of the nice things about transistors is that they take so little power —easily furnished by a few flashlight cells (it says here). There are two fallacies in this pleasant theory: (1) You never have any flashlight cells when you get the urge to try a transistor circuit; or (2) you have some, but they're dead. A few of both experiences prompted the construction of the low-voltage d.c. supply shown in the photographs. Its output voltage is adjustable up to 18 volts, depending on the current demanded of it. The maximum current at 18 volts is about 30 mA., but at some lower voltages the current can be as high as one-half ampere.

THE CIRCUIT

The electronic filter circuit used by Joe Galeskie in his "Imp-TR"† appeared to answer the problem of how to get adequate hum filtering. This circuit also suggested the possibility of getting continuously-adjustable d.c. output voltage, by installing a potentiometer for setting the base bias of the filter transistor.

To save the trouble of rewinding a transformer to give some desired output voltage, a 6.3 volt filament transformer was used, along with a voltage-doubling full-wave rectifier. This on the theory that a nominal 12 volt supply would take care of nearly all requirements, since 12 volts is standard for car electrical systems.

The parts were first haywired together on the bench to see how the circuit would work. It met expectations, so the version shown was built up. The box is 5¼" x 2⅛" x 3". Everything is insulated from it, so either side of the output circuit can be grounded.

The only part of the circuit that required any special attention was the potentiometer, R1. A few measurements showed that the d.c. output voltage stayed more constant with load changes as the total resistance of R1 was made smaller. However, reducing the value of R1 also decreased the effectiveness of the electronic filter, no doubt because the RC product in the base circuit should have been kept constant. Unfortunately, getting some additional hundreds of microfarads at a 25 volt rating would have run into undesirable bulk. A value of 2,000 ohms for R1 was finally settled upon as a suitable compromise.

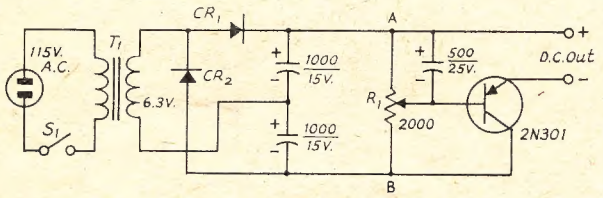


Fig. 1.—Circuit of the Low-Voltage Power Supply. Capacitances are in μF., capacitors are electrolytic. Resistance is in ohms.

CR1, CR2—Silicon, 750 mA., 50 volts or more inverse peak (1N536, etc.).
R1—2,000 ohm pot., linear taper.
S1—S.p.s.t. slide switch.
T1—Filament transformer, 6.3 volt 1.2 amp.

Incidentally, the transistor is not a d.c. regulator per se. The circuit does resemble the series-type regulator, but there is no stable fixed voltage to serve as a reference. Nevertheless, there is a species of d.c. regulation—enough so that the output voltage is held considerably more constant than the d.c. input voltage (between points A and B) with changes in load current. With a fixed setting of R1 in the middle range, the voltage drop is of the order of 20 per cent., from zero output current to a load of around 300 mA. At light loads (up to perhaps 50 mA.) such as would be representative of most transistor circuits, the drop is under 5 per cent.—hardly noticeable. The d.c. could easily be regulated by using a Zener diode as a reference, but at the expense of the voltage-adjustment feature.

RATINGS

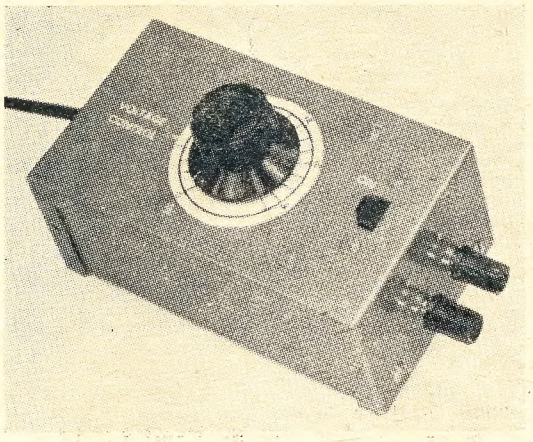
The supply wasn't intended to be a replacement for a storage battery, but all of the components used do have rather ample ratings, as compared with what might be taken continuously from flashlight cells. Theoretically, the d.c. output current should be limited to no more than 350 mA. or so, to keep within the ratings of the 1.2 amp. filament transformer. However, the transformer doesn't get particularly hot at this load. The actual limitations on output power are tolerable ripple voltage and transistor heating.

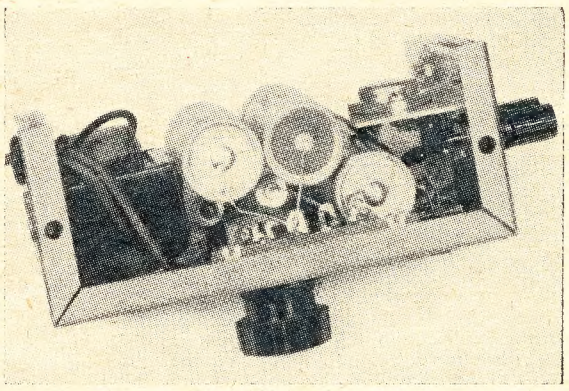
The ripple-voltage limitation applies at the higher d.c. output voltages, as shown by the two upper curves in Fig. 2. A figure of 10 millivolts r.m.s. was chosen as a tolerable ripple, more or less arbitrarily. It represents just detectable hum in a pair of headphones connected across the supply output terminals (with low ambient noise and a headset having reasonably good low-frequency response). This is probably a rather severe test; we haven't yet heard a trace of hum in actual use of the supply on transistor equipment. The 18-mV. curve can be taken as an "absolute" maximum, because at higher current the hum increases rapidly; the electronic filter begins to lose control above this level.

Transistor heating is the limiting factor at low output voltages. Here the collector-emitter voltage is highest, leading to maximum collector dissipation. The 2N301 is rated for a flange temperature of 80°C. A series of tests

(Continued on Page 8)

* Reprinted from "QST," June 1962.
† Galeskie, "The 'Imp-TR'," "QST," Dec. 1961.





Left: This compact unit is a battery substitute for use with transistor circuits. Output voltage is adjustable up to slightly more than 18 volts. The calibration scale shown is in terms of no-load voltage.

★

Right: All circuit wiring is between tie points on two strips, one mounted as shown and the other in the corresponding position on the far side of the box. The two diode rectifiers can be seen below the two filter capacitors in the centre; these capacitors are the 1,000 μF. electrolytics in the voltage doubler. The filter capacitor for the transistor base is at the right. The transistor is mounted on an aluminium shelf measuring 2½ x 1½ inches, with a half-inch mounting lip bent upwards. Insulating washers are used to bolt the shelf to the side of case, since the collector is not insulated from the shelf. The binding posts are similarly insulated.

CRYSTAL CONTROLLED TRANSMITTER FOR 576 Mc.

R. K. GRAHAM, VK6ZDS*

It has been observed that literature on equipment for the 576 Mc. band is very limited. To the author's knowledge only two articles have ever appeared in Australian publications[1, 2] and apart from occasional items in the V.h.f. Notes in "A.R.," this appears to be the entire published material.

A publication by Mullard[3] has been found to be extremely useful and is worthy of careful study.

The equipment referred to in References 1 and 2 is of the unstabilised variety. It was with equipment of this type that activity here first started. As it was felt that some contribution to the art should be made, the transmitter to be described was designed and built.

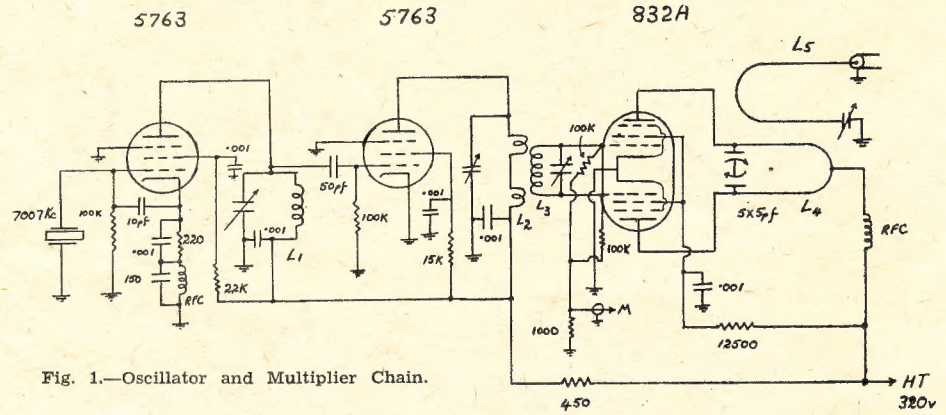


Fig. 1.—Oscillator and Multiplier Chain.

TUBES

Final: The QQE03/20 is the logical choice. It is readily available and the price reasonable. Also the plate efficiency is about 40%, drive (and losses) is reaonable, about 5w.; and the output capacitance is relatively low at 1.6 pF. Another tube which appears very good is the 2C39A. Construction wise, it is rather more difficult to use, but a considerably higher input can be run and the cost is slightly less than the 3/20.

P.A. Driver: It is almost essentially necessary that this tube be a tripler stage as there are few tubes which would be effective doublers to this frequency and have a reasonable plate efficiency.

Again the 3/20 was chosen. The tube curves indicated that it would just provide the required drive to the p.a., with an input of about 20w.

The other multipliers are conventional and call for no comment except possibly the 832A. A QQE03/12 was originally tried in this position but only two-thirds of the required drive could be obtained in the grid circuit of the 3/20. The 3/12 was replaced with an 832A and ample drive results.

Thus the line-up became a 5763 osc./tripler, 5763 tripler, 832A tripler co-ax. coupled to QQE03/20 tripler, and an QQE03/20 p.a. The multiplication factor is 81.

CONSTRUCTION

The 5763 osc./tripler, 5763 tripler and the 832A tripler are mounted along the back of an 18" x 12" x 3" aluminium chassis. The plate circuit of the 832A is above chassis level and is co-ax coupled to the 3/20 grid, which is below chassis level.

The two 3/20s are mounted along the front of the chassis, the tripler being mounted vertically and the p.a. horizontally, and both are partially sunk below the chassis and mounting plate respectively.

It is to be noted that the coupling from the plate of the 832A to the 3/20 tripler is critical and all coupling and tuning adjustments show some interaction. The spacing of the 3/20 tripler lechers to the grid coil of the p.a. is critical for optimum performance.

The 3-30 pF. Philips trimmer used on the 3/20 tripler plate and grid circuits has been modified to approximate to a balanced condenser and this also enables a shaft to be fitted for external tuning (see Fig. 3).

An unmodified trimmer, mounted horizontally across the lechers, showed a marked decrease in circuit efficiency.

The grid circuit of the p.a. is made from heavy sheet copper and is series tuned at each grid. The final tank lechers are silver plated, inductively tuned and features plate pin connectors which exhibit an extreme degree of flexibility. They are made from the copper strips in a 250v. three-pin socket. The long straight piece is removed and the doubly curved portion is joined to the lecher lines with a suitable strap for added mechanical strength.

It is important that the pin connectors have good heat transfer properties (no brass please), minimise mechanical shock transferred to the tube, and do not introduce serious discontinuities in the lines. Also the residual capacitance across the tube plate pins must be low.

SHIELDING

This is essential for best efficiency. Radiation from the lechers is very high at this frequency. Shielding of the 3/20 plate-p.a. grid resulted in a 10% increase in grid current which was already 1.5 mA., and shielding of the p.a. tank showed a definite increase in antenna feeder current.

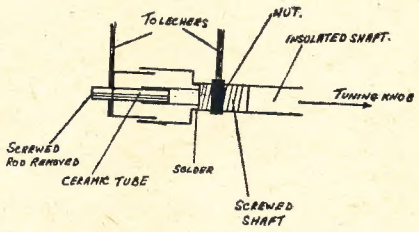


Fig. 3.—Modified Philips 3-30 Trimmer. (Internal plates not shown.)

It was not found possible to dip the final and tuning was indicated by r.f. meters. Without shielding it is virtually impossible to use this method as radiation and body effects makes the readings unreliable.

The shielding makes air cooling essential if the ambient temperature is at all high. If ambient is about 20°C., it is considered that thirty minutes of continuous running without blowing is about maximum, longer than this and

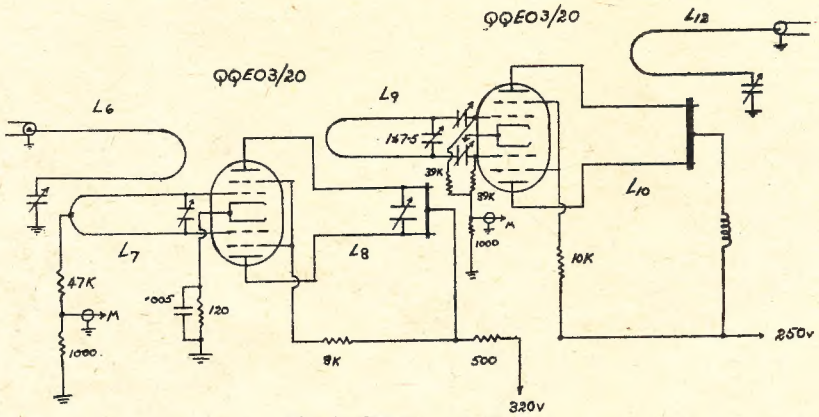


Fig. 2.—Tripler and Final.

Filament Chokes are used on the QQE3/20s. All unmarked variables, Philips 3-30 pF.

* 40 Hensman Street, South Perth, W.A.

components start becoming excessively hot. A large heavy chassis helps in dissipating the heat.

GENERAL COMMENTS

A good absorption wave meter is essential. Those used here were first calibrated by Wally VK6ZAA using unstabilised gear and lechers, then when this transmitter was proved to be on frequency, it became the master standard. A process of working backwards, but at u.h.f. especially, **finding** the band can be a major headache if no calibrated measuring equipment is available.

Another problem is the abundance of high powered harmonics which abound. The 3/20 "tripler" gives out sufficient second harmonic—384 Mc.—to drive the p.a. grid to 0.4 mA. grid current even when the plate of the 3/20 tripler is tuned to 576 Mc. The p.a. final, tuned to 384 Mc., showed a 12% dip in final plate current. Who said that push-pull triplers did not double? In the course of adjustments to the 3/12 mentioned previously, it was accidentally made to double and drove the 3/20 tripler grid to 1.5 mA. grid current.

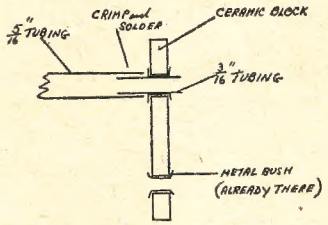


Fig. 4.—Lecher Mounting Details.

All power leads, meter leads and filament leads are run in shielded cable. The push-pull finals are not by-passed.

The end support for the lechers is ceramic block. The ones used here are from the 522 receiver tuning condenser. The c. to c. spacing of the bushed holes is the same as the c. to c. spacing of the plate pins of the 3/20s (see Fig. 4).

Frequency stability is a problem with this order of multiplication used here. The initial drift is relatively high and even after a suitable warm-up period the b.f.o. note is poor. If c.w. and narrow band i.f. strips were being used, careful consideration would have to be given to the selection of the oscillator.

POWER SUPPLIES

With an exciter chain of the size and power of the one described, the h.t. current drain is high and due consideration must be given to high current transformers and not to overloaded receiver-type transformers.

Care should be taken that the filament voltage is correct.

Actual running conditions of the original were as follows:—

5763 Osc./Tripler, 5763 Tripler

Plate voltage .... 295 volts
Screen voltage .... 240 volts
Total plate & screen current, 40 mA.
Drive to tripler, 1 mA. through 100K.

832A Tripler

Plate voltage .... 320 volts
Screen voltage .... 250 volts
Total plate & screen current, 75 mA.
Drive 2.8 mA. through 47K resistor and a 120 ohm cathode resistor.

The exciter power supply drain, 203 mA. with a h.t. voltage of 320 volts.

QQE03/20 Final

Plate voltage .... 250 volts
Total plate & screen current, 80 mA.
Drive up to 2.2 mA. through effectively 19.5K resistor is available.

All measurements made with an AVO Model 8 Multimeter.

EFFICIENCY

No calibrated power measuring instruments were available for direct measurements. However, by a series of empirical tests, it would appear that the output of the p.a. is of the order suggested by the manufacturers' data, i.e. about 40% (about 8 watts).

COIL DATA

L1—23 turns of 20 s.w.g. on a ⅜" former with slug.

L2—6 turns of 14 s.w.g., ¾" diam. (3 turns either side of a 1" space).

L3—4 turns of 14 s.w.g., 1" diam. (coupled into L2), ends of coil spread to meet the socket pins, condenser mounted across the socket pins.

L4—Hairpin loop, 5" long of ⅛" copper tube spaced 1" c. to c. Condenser 1½" from plate pins.

L5—Hairpin loop, 3¼" long of 18 s.w.g., 1" c. to c., spaced about ⅜" above L4.

L6—Hairpin loop, 2½" long of 18 s.w.g., 1" c. to c., spaced ⅛" above L7.

L7—Hairpin loop, 2½" long, of ⅛" copper tubing, ⅞" c. to c., ends spread to meet the socket pins, condenser across the pins.

L8—Lechers. 1¾" effective length of 5/16" copper tubing, spaced 9/16" c. to c. Condenser ½" from the short (plate clips are an extra ½").

L9—Hairpin loop, 2½" long, ½" c. to c., made of copper sheet ¾" wide and 1/32" thick.

L10—Lechers. 3" long of 5/16" tubing, 9/16" c. to c. Effective length 1⅛", plate connectors are power socket connectors, an extra ½" (see text). Sliding short of ⅜" wide copper strip and a suitable screw adjustment for tuning.

L11—Hairpin loop, 1½" long of 12 s.w.g., ¾" c. to c.

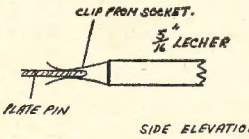


Fig. 5.—P.A. Pin Connector Details.

CONCLUSION

It is appreciated that few Amateurs build gear exactly as described in the literature. Every one introduces some modifications and thus the art progresses (?).

This article is one idea for a 576 Mc. transmitter. No apology is tendered for the use of high powered tubes throughout. If any sort of work is to be done after the transmitter is built, propagation checks, antenna tests, etc., a reliable r.f. source is essential. As the transmitter becomes bigger the reliability of the equipment must increase or one is going to spend all the experimenting time patching up the transmitter, so build conservatively.

The antenna used here is a 13 element long yagi designed by the author from graphs in the V.h.f. Handbook.

The modulator is a pair of 807s in modified 2JU circuitry.

It is hoped to carry out some experiments with a high powered final. The tubes available here are micropups, 15E, 2C39A and a coaxial tube R.C.A. 6884. This latter tube will take the maximum Amateur input power and requires little drive.

The author would be grateful for any correspondence on high powered finals for 576 Mc. or on 576 Mc. generally. ●

REFERENCES

1. "Amateur Radio," 1948.
2. "Radio and Hobbies," August 1951.
3. Data and Application Notes for QQE03/20 and QQE06/40. Mullard, May 1958.

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TRANSISTOR POWER SUPPLY

(Continued from Page 5)

showed that, with the type of mounting and enclosure used here, a collector dissipation of 3 watts was just under this temperature rating. It takes a few hours for the transistor temperature to stabilise at this figure, and larger currents than are shown by the curve of Fig. 2 can be taken for short periods if the transistor is allowed to cool off subsequently. Ordinarily, however, the shaded region should be avoided. The transistor limitation could be removed by using a regular heat sink for the 2N301, but this would increase the bulk by a considerable margin.

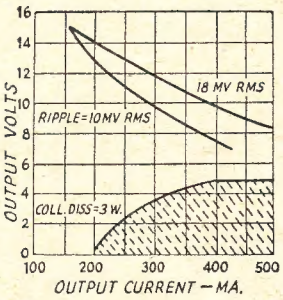

Fig. 2.—Rating Chart—permissible output current v. output voltage. Power supply ripple voltage will be less than the values given by the two top curves for all points below the curves. The shaded area should be avoided because in this region the transistor temperature will be over the rating unless an adequate heat sink is provided.

USES

In most transistor circuits the steady current is quite low, and this supply has far more output than is needed. However, the extra capacity is handy. For example, a practical transistor circuit may call for two or more voltages, ordinarily obtained from taps between cells of the battery. With a single voltage source a voltage divider has to be used, and it should have as low resistance as possible. With this supply you can usually afford to put a fairly heavy current through a low-resistance divider, and still have plenty left over for the transistors.

The adjustable output voltage is useful not only for "sneaking up" on normal operating conditions when first trying a new circuit, but also for determining the limits of voltage at which a piece of equipment will operate.

The gadget can even be used for tube circuits—for example, as a d.c. supply for the heaters in the early stages of a high-gain audio amplifier. It will easily handle two 12.6 volt, 150 mA. heaters, or one 6.3 volt 450 mA. heater. It is thus useful for helping to localise hum troubles in testing amplifiers or oscillators.

Finally, unlike flashlight cells, it's always fully charged and ready to go, just as long as there's an a.c. outlet within reach of the plug! ●

★

EXPLANATION

The Publications Committee regret to announce that the paper previously used to print "A.R." is no longer available, hence newsprint will again be used for future issues.

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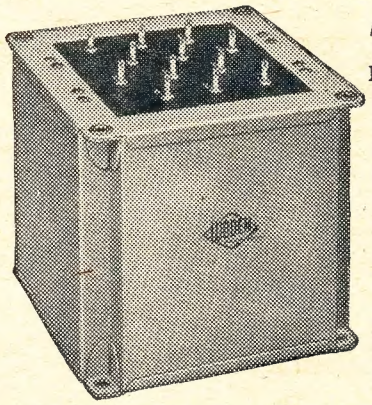

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- **Above or below chassis wiring.**
- **Capacity: 10 to 250 watts as under:**

List No.	Audio Watts	RF Inp. Watts	Max. Sec. Current	Overall Size L.	W.	H.	Weight lb.	oz.	Price incl. sales tax
UM0	10	20	60 mA.	2⅞"	2¾"	4"			£5/16/0
UM1	30	60	120 mA.	3⅞"	3¼"	3⅝"	5	8	£7/9/9
UM2	60	120	200 mA.	5¼"	4¼"	5¼"	11	8	£10/13/3
UM3	120	240	250 mA.	5¼"	5¼"	5¼"	14	8	£12/2/6
UM4	250	500	400 mA.	10¼"	6¾"	8¾"	41	0	on application

Connections for Woden UM1, UM2, UM3, UM4 Modulation Transformers

PRIMARY CONNECTIONS FOR MODULATOR TUBES				SECONDARY CONNECTIONS AND IMPEDANCES FOR R.F. LOAD												
A to A Impedance	Audio Tubes A	CT	A	Join 9 & 10 conn. to 7 & 12	Join 9 & 10 conn. to 8 & 12	Join 9 & 10 conn. to 8 & 11	Join 8 & 9 conn. to 7 & 12	Join 7 & 9 10 & 12 conn. to 7 & 10	Join 8 & 9 10 & 11 conn. to 8 & 10	Join 3 & 4 conn. to 1 & 6	Join 3 & 4 conn. to 2 & 6	Join 2 & 3 conn. to 1 & 6	Join 3 & 4 conn. to 2 & 5	Join 1 & 3 4 & 6 conn. to 1 & 4	Join 7 & 11 8 & 12 conn. to 7 & 8	Join 1 & 5 3 & 6 conn. to 1 & 2
Ohms.																
2000	2	3—4	5	8600	6350	4300	3620	2150	1070	—	—	—	—	—	200	—
2000	1	2—5	6	15700	11400	7900	6650	3920	1950	—	—	—	—	—	350	—
3000	2	3—4	5	13000	9400	6500	5500	3240	1620	—	—	—	—	—	300	—
3000	1	2—5	6	23500	17000	11800	10000	5900	2950	—	—	—	—	—	520	—
3800	2	3—4	5	16400	12000	8200	7000	4100	2050	—	—	—	—	—	380	—
3800	1	2—5	6	29800	21500	15000	12600	7500	3740	—	—	—	—	—	660	—
4000	2	3—4	5	17400	12500	8650	7300	4300	2160	—	—	—	—	—	400	—
4000	8	9—10	11	—	—	—	—	—	—	5500	3450	2850	1850	1380	—	250
5000	2	3—4	5	21600	15700	10800	9150	5400	2700	—	—	—	—	—	500	—
5000	8	9—10	11	—	—	—	—	—	—	7000	4300	3500	2300	1730	—	300
6000	1	3—4	6	8600	6350	4300	3620	2140	1070	—	—	—	—	—	200	—
6000	8	9—10	11	—	—	—	—	—	—	8300	5150	4250	2750	2180	—	370
6600	1	3—4	6	9500	7000	4750	4000	2350	1180	—	—	—	—	—	220	—
6600	8	9—10	11	—	—	—	—	—	—	9100	5650	4660	3000	2400	—	405
7000	1	3—4	6	10000	7300	5050	4280	2500	1250	—	—	—	—	—	230	—
7000	8	9—10	11	—	—	—	—	—	—	9700	6000	5000	3200	2400	—	430
8000	1	3—4	6	12000	8400	5800	4900	2900	1440	—	—	—	—	—	270	—
8000	8	9—10	11	—	—	—	—	—	—	11000	6900	5650	3700	2760	—	500
9000	1	3—4	6	13000	9400	6500	5500	3200	1620	—	—	—	—	—	300	—
9000	8	9—10	11	—	—	—	—	—	—	12500	7750	6300	4150	3100	—	550
9000	7	9—10	12	—	—	—	—	—	—	6200	3900	3200	2050	1550	—	275
10000	1	3—4	6	14400	10500	7200	6100	3600	1800	—	—	—	—	—	330	—
10000	8	9—10	11	—	—	—	—	—	—	14000	8600	7100	4600	3450	—	600
10000	7	9—10	12	—	—	—	—	—	—	6900	4300	3500	2300	1740	—	310
12000	1	3—4	6	17400	12500	8700	7250	4320	2150	—	—	—	—	—	400	—
12000	7	9—10	12	—	—	—	—	—	—	8300	5150	4250	2750	2070	—	370
14000	7	9—10	12	—	—	—	—	—	—	9700	6000	4900	3200	2440	—	430
16000	7	9—10	12	—	—	—	—	—	—	11000	6900	5600	3700	2789	—	500
18000	7	9—10	12	—	—	—	—	—	—	12500	7750	6300	4150	3140	—	550

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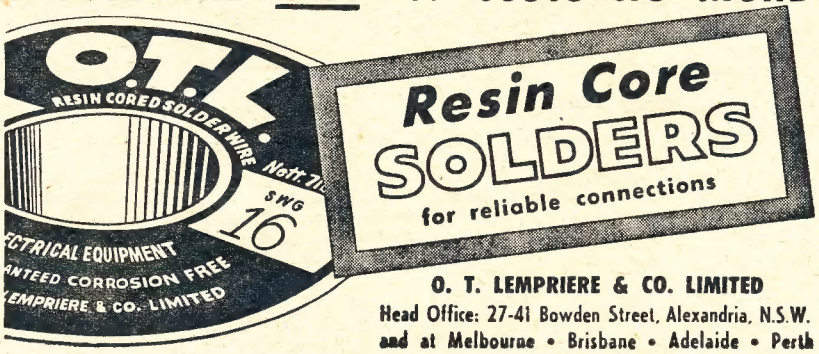

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ROSS HULL MEMORIAL V.H.F. CONTEST, 1962-63

The Federal Contest Committee of the Wireless Institute of Australia invites all Australian and Overseas Amateurs and Short Wave Listeners to participate in this annual contest which is held to perpetuate the memory of the late Ross Hull whose interest in v.h.f. did much to advance the art.

A handsome Perpetual Trophy is awarded annually for competition between members of the W.I.A. in Australia and its Territories inscribed with the name and life work of the man whom it honours. The name of the winning member of the W.I.A. each year is also inscribed on the Trophy. In addition, this member will receive a suitably inscribed, framed photograph of the Trophy.

Objects: Amateurs in each VK Call Area will endeavour to contact Amateurs in other Australian Call Areas and Overseas.

Date of Contest: 15th December, 1962, to 13th January, 1963.

Duration: From 0001 hours E.A.S.T. (1401 hours G.M.T.) on 15/12/62 and 14/12/62 respectively, to 2359 hours (1359 G.M.T.) on 13/1/63.

RULES

1. There shall be three main sections to the Contest:
   (a) Transmitting, Open, 50 Mc. and higher.
   (b) Transmitting, Phone, 50 Mc. and higher.
   (c) Receiving, Open, all bands, 50 Mc. and higher.

2. All Australian and Overseas Amateurs may enter for the Contest whether their stations are fixed, portable or mobile.

3. All Amateur v.h.f. bands may be used, but no cross-band operating is permitted.

4. Amateurs may enter for any one of the transmitting sections. All contacts must be consecutively numbered in the one number sequence to facilitate checking.

5. Only one contact per band per station is allowed each calendar day.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

7. Entrants must operate within the terms of their licences.

8. **Cyphers**: Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of 5 or 6 figures will be made up of the RS (telephony) or RST (c.w.) report plus three figures commencing from 001 for the first contact and will increase in value by one for each successive contact. If any contestant reaches 999 he will start again with 001.

9. **Entries** must be set out as shown in the example, using only one side of the paper. Entries must be postmarked not later than one month after the Contest (i.e. not later than 13/2/62) and addressed to the **Federal Contest Committee, W.I.A., Box 638J, G.P.O., Brisbane, Queensland.**

10. **Scoring** for all sections will be based on the attached table. Contestants will have to agree between themselves as to the distance between their stations. Such distances must be shown in their log entry in the column usually used for remarks or bonus points.

11. **Logs:** All logs shall be set out as in the example and in addition will carry a front sheet showing the following information:

Name .....Call Sign.....

Address.....Section.....

.....Claimed Score .....

Declaration: I hereby certify that I have operated in accordance with the Rules and Spirit of the Contest.

Signed.....

Date.....

Note: Entries on the front sheet must be clearly shown in block letters.

12. The right is reserved to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No dispute will be entered into.

14. **Awards**: Certificates will be awarded to the winners of each section in each VK and Overseas Call Area. The VK contestant who returns the highest score in the transmitting sections and who is a financial member of the W.I.A. will hold the Trophy until the next Ross Hull Contest is decided, and in addition will receive an appropriately inscribed photograph of the Trophy.

GENERAL

A new method of scoring has been evolved from suggestions made by the majority of VK Divisions. Comments on the operation of this new method will be appreciated by the F.C.C. It is suggested that contestants obtain a large scale map of Australia and of their State and mark on these maps the radial distances from their location in accordance with the scoring table.

RECEIVING SECTION

1. Short Wave Listeners in Australia and Overseas may enter for the Contest, but no transmitting station may enter.

2. Contest times and logging of stations on each band are as for the transmitting sections.

3. To count for points, logs will take the same form as for transmitting sections but will omit the serial number received. Logs must show the call sign of the station heard (not the station worked), the serial number sent by it, and the call sign of the station being worked.

Scoring will be on the same basis as for transmitting stations. It is not sufficient to log a station calling CQ.

4. A station heard may be logged only once per calendar day on each band for scoring purposes, but additional reports will be of value to the F.C.C.

5. **Awards:** Certificates will be awarded to the highest scorer in each VK and Overseas Call Area.

SCORING TABLE

Distances Between Stations	50 Mc.	144 Mc.	288 Mc.	576 Mc.	Higher
Up to 10 miles	1	1	1	1	5
Over 10 and up to 25 miles	1	1	1	2	10
Over 25 and up to 50 miles	1	1	2	10	30
Over 50 and up to 100 miles	4	2	6	20	60
Over 100 and up to 200 miles	10	4	10	30	80
Over 200 and up to 300 miles	20	10	16	40	
Over 300 and up to 500 miles	10	16	30		
Over 500 and up to 1,000 miles ..	2	30	40		
Over 1,000 and up to 5,000 miles ..	10	40			
Greater than 5,000 miles	20	50			

EXAMPLE OF TRANSMITTING LOG

Date/ Time	Band	Emis- sion	Call Sign	RST/NR. Sent	RST/NR. Rcvd.	Distance	Points Claim.	Blank

NOTE.—State whether Time is E.A.S.T. or G.M.T.

EXAMPLE OF RECEIVING LOG

Date/ Time	Band		Station Heard	RST/NR. Sent	Station Called		Points Claim.	Blank

NOTE.—State whether Time is E.A.S.T. or G.M.T.

INTERNATIONAL AMATEUR RADIO STATION 4U1ITU INAUGURATED*

The radio station of the world's first International Amateur Radio Club (I.A.R.C.) was inaugurated at I.T.U. headquarters at 11.30 a.m. on Sunday, 10th June.

Following the inauguration ceremony, the station began to operate at 12 noon for a continuous 24-hour period. The first call was made by the Secretary-General, Mr. Gerald C. Gross, on c.w. The first contact was made with DL4VK, and contacts with Radio Amateurs throughout the world continued during the day and night—more than 1,300 in all.

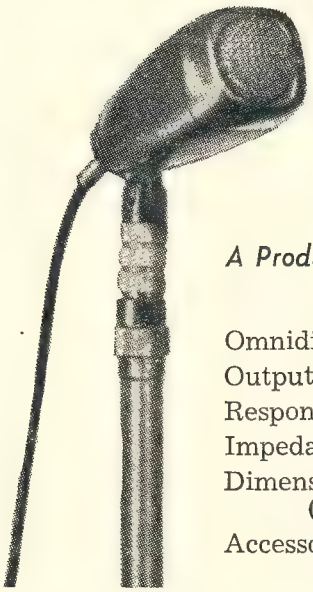
The International Amateur Radio Club, which has also been founded at I.T.U. headquarters, is the first international venture of its kind. Its aims are to further international friendship and understanding through Amateur Radio, to co-operate with all Radio Amateur associations throughout the world, to promote the proper use of the frequency bands allocated to the Radio Amateur Service, and to provide the organisation for managing and operating the new transmitting and receiving station.

The station has been installed on the top floor of the I.T.U's. new building and, in agreement with the United Nations and the Swiss P.T.T. Administration, it has been assigned the call sign of 4U1ITU. It is to be operated under the supervision of a committee appointed by the members of the Club, and all Radio Amateurs holding an Amateur Radio Licence will be welcome to operate on it in accordance with the station rules.

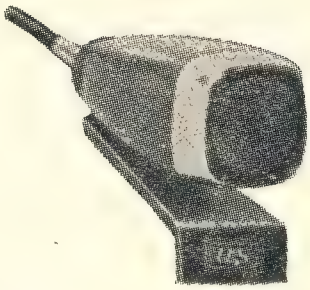
The President of the Club is Mr. John H. Gayer, Vice-Chairman of the I.T.U's. International Frequency Registration Board (I.F.R.B.).

* Reprinted from "Telecommunication Journal," July, 1962.

UNIVERSAL SOUND



DYNAMIC MICROPHONE
Model 603



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Impedance: 50,000 ohm, 250 ohm or 60 ohm.
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(1-9/16" x 1-9/16" x 3-13/16").
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S.S.B. POWER MEASUREMENT

I. MACMILLAN, VK3CS*

AT the Federal Convention an item was put up by the VK5 Division concerning the Institute approaching the Department regarding the adoption of the British Post Office method of measuring the power of an s.s.b. transmitter.

As there was a considerable difference of opinion among delegates concerning this motion, it was decided that the matter be referred to Divisional technical personnel for reports, before action should be taken.

It is felt that members generally should be aware what the British P.O. method is, and to understand how it works.

The general principle is that the peak output of an s.s.b. transmitter running at the legal limit should be the same as the peak output of an a.m. transmitter running at the legal limit, which seems to be a fair principle.

If an a.m. transmitter is unmodulated (c.w.) and the d.c. input is adjusted to 150 watts, the output voltage, relatively measured on an oscilloscope (envelope pattern) as the height of the pattern on the screen, will have a certain value, which may be represented by, say, one inch of deflection on the screen.

If the transmitter is now 100% modulated, the modulation peaks (as now shown by the envelope pattern on the c.r.o. screen) will reach twice the voltage that the carrier did, so that the total deflection is now two inches.

Now, if the peak voltage is twice the carrier voltage, the peak envelope power (p.e.p.) will be four times the carrier power, because the transmitter is assumed to run into a constant impedance load, and $W = E^2 \div R$.

* W.I.A. Federal Publicity Officer.

From this it can be seen that an a.m. transmitter, 100% modulated, has a p.e.p. of 600 watts if it runs 150 watts unmodulated.

An s.s.b. transmitter can run a "carrier" (single unmodulated frequency) in two ways—either by deliberately injecting carrier from the balanced modulator(s), or by injecting a pure sinusoidal tone into the audio section. In the latter case, because only one sideband is generated, only a single r.f. frequency is generated, and the same effect is produced as when the true carrier is injected, although the r.f. is, of course, the audio frequency displaced from the carrier frequency.

Whatever the method of deriving it, this "carrier" is applied to the p.a. of the s.s.b. transmitter, and having adjusted the d.c. input of the stage to 150 watts, the relative output voltage is measured on the c.r.o., as previously described.

The deflection may be recorded, for example, by means of a grease pencil on the screen, and, by measurement with a rule, further marks are made on the screen corresponding to double the deflection.

If, now, the "carrier" is removed, and speech applied to the transmitter, the peak deflection shall not exceed the second pair of marks, that is, twice the deflection produced by the "carrier". Under this condition the p.e.p. will not exceed 600 watts; the same as a comparable a.m. transmitter. Although this is input power, a class B stage running a high level signal approaches the efficiency of a class C stage, so outputs will be comparable.

Several points are worth making. One is that the frequency distribution of the signal has no effect on the method, because the c.r.o. measures the sum of all the signal voltage vectors present, it being only possible to have one voltage at a point at any instant, and it is, of course, this sum voltage that determines the power.

Most s.s.b. stations already have c.r.o. monitors, and if not, should have, as no other instrument will show whether linearity is being maintained, so that a necessity of having a c.r.o. should be no hardship. In view of the simplicity of a monitor 'scope, and the vast array of suitable components available in disposals, a 'scope might present a lesser outlay than a meter having a specified time constant, as required by another proposed method, and would certainly be a greater asset to the station.

Regulations specifying methods of s.s.b. power measurement are necessary to ensure uniformity of interpretation, but their formulation will have to be approached with some care, to avoid anomalies as a low powered portable station having to be equipped with a c.r.o., which might be a considerable inconvenience; but at the same time giving an operator an unambiguous method of s.s.b. power measurement when his transmitter is capable of the legal limit.

Possibly the answer would be to specify that the c.r.o. method of power measurement need only be applied to transmitters having p.a. valves exceeding a certain rated anode dissipation.

The difficulties can be overcome—the important point is that here is the only unambiguous method of s.s.b. power measurement that has been so far propounded. It is up to the members, through their Divisions to decide whether this is the specifications they want, and then it is up to F.E. to take the matter further.

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FK8, YJ1, FW8, VR2 DX-PEDITION 1962

BY BILL HEMPEL, VK3AHO

ON Wednesday, 30th May, 1962, I left from Sydney for New Caledonia, the first leg of a great adventure. Just two hours from Sydney I stepped from the giant DC8 jet into a tropical warmth which was a direct contrast to the winter's morning of Sydney.

I was met at Tontouta Airport by Raoul FK8AU, Felix FK8AC, Daniel FK8AY (Raoul's son), Louis FK8AX, John FK8AE and Archille FK8AS. Landing formalities were quickly taken care of and I was soon on my way by car to Noumea, some 30 miles away.

Although I had a little trouble with my schoolboy French, the understanding of the people soon enabled me to make myself understood.

Next day I collected the KWM2 and accessories, which had been sent air freight to me at Noumea by Cal W4ANE. Felix FK8AC did a marvellous job handling all the customs formalities on the equipment.

June 1, I set up the KWM2 in Raoul's shack, which was only five minutes' walk from my hotel. I used my Matchbox and Micromatch to load Raoul's windom and vertical. I operated from FK8AU for one week and gave many Amateurs their first two-way s.s.b. QSO with FK8.

On June 7, I packed the equipment and next morning I boarded a DC4 for Vila in the New Hebrides. Pleasant surprise to find both English and French spoken. I applied for a licence and was given the call YJ1RH. I set up the KWM2 in my hotel bedroom, looking out over the beautiful Port of Vila. Temperature was average, 88°F., a little warmer than New Caledonia.

I put up two windom antennae at right angles to each other, one was 90 feet out over the water. I once again used the Micromatch and Matchbox to load the KWM2 on all bands. Although I made W.A.C., conditions were very poor and only 800 QSOs for the week.

June 15, I returned to New Caledonia and operated again from FK8AU on s.s.b., also operated from the shacks of FK8AC and FK8AX on s.s.b. I also had the opportunity to test the 12v. transistor supply with the KWM2.

June 24, I departed from New Caledonia by DC4 and six hours later we came in over Wallis Island, a volcanic island of 62 square miles, surrounded by a coral reef. As the DC4 touched down on the grass strip, built by the Americans in 1942, I caught a glimpse of the hundreds of native people who had come from all parts of the island to greet the monthly plane. On stepping from the plane all passengers were presented with a beautiful flower lae and I felt I was indeed welcome to this island paradise, so remote from our modern way of living.

I was on my own now, no Amateurs to meet me here. I supervised the unloading of my precious boxes from the aircraft into an old utility, soon I was on my way to Mata Utu over a seven mile road built by the Americans during World War II. Mata Utu is the administration centre for Wallis, but apart from the Governor's residence, the King's two storey home, and cathedral, Mata Utu is just like any other native village on the island.

The population of Wallis is approximately 6,000 French Polynesian natives who speak a little French and their own language, which is a native dialect. The main foods, which I also ate, are yams, cassava, bananas, arrowroot, paw paw and fish. Education is provided by the missionaries, which is subsidised by the French Government.

July 29, 1961, Wallis and Futuna were granted the status of Independent Overseas Territory of the French Republic.

Archille FK8AS (left) and Raoul FK8AU (right) with the ones that did not get away.

The natives are very expert at weaving and making of tapa. Tapa is a bark cloth, decorated with geometric designs and is widely known for its artistic craftsmanship. Cargo vessels call at Mata Utu about every two months and T.A.I. have a monthly air service. The money used is the Pacific Franc. 100 F. C.F.P. = $1.00, or 200 F. C.F.P. = £1 Australian.

June 25, I called on the Governor and presented my credentials. He authorised my operation with the call sign FW8BH, the Governor then left me in the care of the Post Master who took good care of me from then on. I set up my shack in a disused toilet at the rear of the Post Office. My antenna was a multiband dipole fed with RG58U. 110 volt power was available for three hours daily.

Toward the end of my stay, I was able to put up another antenna at the engine and battery room, about 200 yards from the Post Office. I used the KWM2 from the battery room with a 12v. transistor supply, although band conditions were poor after 0800 G.M.T. when the 110 volt supply was shut down.

My first QSO from FW8BH was on July 15 with VK5AB who had been waiting seven hours on the 20 metre band for me to show up. From then on the band went wild, the S meter on the KWM2 stayed at 20 over 9 for the whole of the American phone band. QSOs were slow the first day, but gradually I thinned them down. When I started c.w. operation, the QRM started all over again. I used the external v.f.o. unit in conjunction with the KWM2.

On the evening of 9th July, I was all set to work a lot of VK and ZL friends on 40 and 80 metres. I was using the transistor power supply and at 0900 G.M.T. I was in QSO on 80 metres with Jock ZL2GX. In the middle of a transmission a sharp crack in the receiver, like lightning, followed by a brilliant flash in the northern sky terminated all communications on 80 and 40 for the night. The H bomb had been fired.

I walked to the door. It was now as light as day. I could see natives running to the Chapel and everyone appeared to be very frightened. In the north a white band of light extended over Wallis to the south, terminating in a fiery red glow. After 10 minutes, the red glow extended to the north and the whole sky gradually changed to a pale pink. The bright glow lasted about 10 minutes and it was possible to see as if the sun was shining.

After 20 minutes, I returned to the KWM2. 80 and 40 metres were completely dead. I loaded up on 20 metres and continued working Ws until 1.30 a.m. local time, when the band went dead.

Next morning WWVH were sending a normal 5 on 15 Mc., but conditions were very poor from then till my last day—11th July. Total number of QSOs were 1,800 on s.s.b. and c.w. on 80, 40, 20 and 15 metres.

QSLs for Ws to W4ANE and others to VK3AHO.

July 11 all equipment was packed and addressed back to Cal W4ANE.

At 0630 G.M.T., just on dusk, the DC4 rose slowly off the grass strip and I reluctantly said farewell to a tropical paradise where equality, liberty and fraternity really exist.

July 12 I met FK8AU again and went by car with Raoul and his family for five days to a coffee plantation on the north coast of New Caledonia.

July 18, I said farewell to the FK8 boys who had given me such a royal welcome that I have already made a firm resolution that I will return to FK8 and FW8.

I boarded the DC8 jet for Fiji where I stayed with Joe VR2EB in Suva and met VR2DI, VR2BC, VR2BJ, VR2AP, VR2BZ, and at Nadi VR2DS, VR2DQ and VR2EH.

From Nadi Airport I operated the Collins S line with the call sign of VR2DS. Conditions were very unstable.

July 26 once again I packed and boarded the giant Boeing 707 jet on my last leg home. The great adventure was over, with over 3,000 QSOs from four countries.

My thanks to all who assisted and especially to Cal W4ANE who sponsored the whole expedition.

* Kyvalley, via Tongala, Vic.

SIDEBAND

Phasing, Xtal Filters, Balanced Mod., Linear Amps., Vox

Sub Editor: BUD POUNSETT, VK2AQJ,
6 Alice Street, Queanbeyan, N.S.W.
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

TRANSMITTER ACCESSORIES

Our man in Gosford, Lindsay Douglas, has been busy in recent months and here, in his own words, is a description of his latest work.

ANTENNA SWITCHING UNIT

Fig. 1a illustrates a simple but very useful gadget in shack of VK2ON. It enables the tx to be switched to any one of four coax antennae or to the dummy load for tuning-up purposes. The switch used is from a BC375 tuning unit. The s.w.r. readings are slightly higher with the switch in position, but the losses involved are only small.

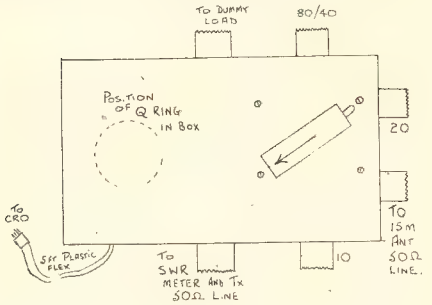

Fig. 1a.—Antenna Switching Box.

The all-band ferrite transformer (Fig. 1b) shows no sign of heating although it is placed across the 50 ohm line with about 100 watts of peak power. This transformer is the same as described previously for a TR switch. It allows a two-inch deflection on a five-inch scope to be obtained on 80 and 40 metres. The stray capacities involved (10 pF. c.r.o. plates, 60 pF. plastic flex) resonate with the five-turn coil to give 3-4 inches deflections on 20, 15 and 10 mx. VK2AC, Leo McMahon, also swears by this system for c.r.o. take-off and he says that rough tuning with a 200 pF. condenser in parallel or series at the c.r.o. plates allows control of the height of display with a 3 inch scope.

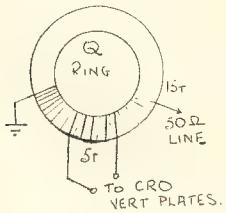

Fig. 1b.—All-Band Transformer.

If one uses less than 100 watts the five-turn coil could be increased to 10 turns. I may mention here that a small relay from a Command tx is used to vary the c.r.t. grid-bias on transmit.

On receive the c.r.o. picture is absent but comes up to full brilliance when the relay is actuated by the tx push-to-talk switch or vox.

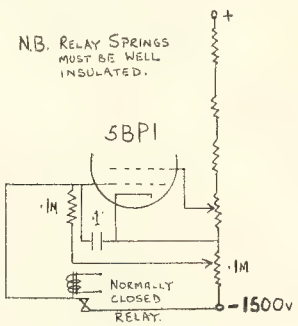

Fig. 2.—Brilliance Control.

TANK LOADING CIRCUIT AT VK2ON

This is an adaptation of the circuit in Collin's S.s.b. Handbook. When the 811As are correctly loaded, the ratio of the r.f. at the cathodes to the plate r.f. voltage is also correct. At this loading the meter shows a null (the zero on the 0.5 mA. meter has been advanced one division to make this easier to read). When setting up the circuit adjust loading so that the ratio of grid current to plate current is about 1 : 5 at full ratings for the 811As. This would be say 50 mA. grid, 250 mA. plate (not cathode) current. The tx is operated into a dummy load of course and the key is pressed for a couple of seconds only.

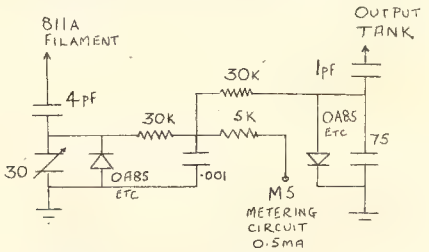

Fig. 3.—Tank Loading Circuit.

Now reduce the drive so that the plate current is exactly 100 mA. and adjust C, for a null on the meter. (Beware of high voltages, keep one hand behind your back.) Now at any future time the loading can be checked by obtaining a null at 100 mA. plate current. There is some difficulty in obtaining a 1 pF. condenser which can stand 1,000 volts r.f. without melting. Four 4 pF. mica condensers in series would be suitable, or a smal section of **large** size co-ax cable with the inner conductor ¼-½ inch in mesh, as it were. However, don't press the key for too long when tuning up. The polarity of the germanium diodes is quite important.

APPLYING A.L.C. TO THE HT32

This is done very effectively by applying rectified bias from the 811A linear stage (or even the 6146s) to the 6AH6 amplifier. There is quite a deal of amplification between these two stages and a positive bucking voltage of about 45 volts, is very satisfactory. When the system operates, the cathode voltage of the 6AH6, as measured through R2 (22K) drops from 1.2 to 0.6v. If there is not sufficient gain, the 9 Mc. amplifier bias setting may be altered to increase this by 6 db. (see manual).

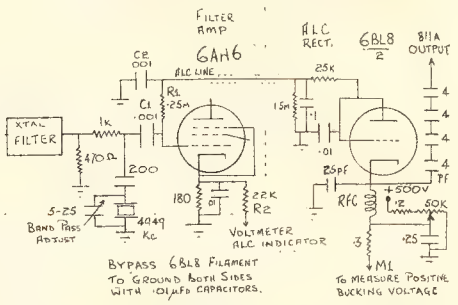

Fig. 4.—HT32 A.L.C.

The 6AH6 filter amplifier has four components added, R1 (0.25 meg.), R2 (22K), C1 and C2 (0.001 μF. disc ceramic). To save altering commercial equipment, a tiny adaptor was made to fit the 7-pin socket of the 6AH6. The plug was a disused pos.-neg. connecting plug from a hybrid car-radio and a miniature 7-pin socket was soldered right on top, pin for pin excepting pin 1. R1 and C1 were crowded in here and some plastic insulation tape used to cover the assembly before plugging in. R2 and C2 were mounted beside the new valve shield. One side of C2 connects to the base of the shield and a tinned wire from this makes contact with the old shields. The items to the right of the dotted line are situated in the linear amplifier stage. The rectifying diode could be a 6AL5, 6H6 or silicon diode. A germanium diode would not have sufficient back resistance.

RECENT COMMERCIAL EQUIPMENT

The trend in Australia recently has been towards commercial equipment for both the transmission and reception of s.s.b. Many Amateurs who cannot find the time to devote to building their own, find the commercial way the only way to get on the air. There are some "Amateur purists" who may argue that this is getting away from the Amateur Radio spirit, but in most cases, it will be found the people using factory-made gear have come up through the ranks of home builders. Many of us do not see overseas publications, so here is a brief description of a few units on the market in the United States and also available through certain distributors here in Australia.

B. & W. 6100. A very interesting tx is the Barker and Williamson Model 6100. The sixty-one hundred has one very unusual feature for an Amateur tx and that is a crystal controlled frequency synthesizer. This means that a normal continuously variable v.f.o. is not used but instead three controls are used, one to set the hundreds, one for the tens, and one for the units of kilocycles. The units dial is continuously variable. A crystal lattice filter is employed to generate the s.s.b. with a bandwidth of 3 kc. The tx has an output of 100 watts on all bands, 80 to 10 mx, into a 30 to 100 ohm line.

Hallicrafters HT32B. The latest from Hallicrafters is the HT32B. This tx also uses the filter method, using a hermetically sealed crystal filter in contrast to the earlier HT37 which was a phasing type. This gives an unwanted sideband suppression of 50 db. or more compared to 40 db. with the HT37. The balanced modulator tube is a 7360 which provides high carrier suppression stability. Again output is of the order of 100 watts on all bands 80 to 10 mx, with fixed 52 ohm output.

A companion to the HT32B is the HT33B linear amplifier. Similarly styled to match the tx, this amplifier runs a kilowatt to a PL172 power pentode, making it a little "overpowering" for use as it stands in Australia. An interesting point about this amplifier is the use of a passive grid circuit, having a low impedance. This matches the HT32B output and requires considerable driving power which precludes the use of an attenuator. The output loading is variable and designed to feed a 50 or 72 ohm line. The frequency coverage is as for the HT32B.

Swan Transceiver. A new development in transceiver design is provided by the Swan Engineering Co., of Benson, Arizona. While

(Continued on Page 16)

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VP4, OA4, BV, ZM7, 7G1, FP, AC5, MP4, ZC6, TY2

Sub Editor: ALAN SHAWSMITH, VK4SS, (Phone 4-6526—7 a.m.-4 p.m.)
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During the equinox period the bands are usually active and this year has been no exception. 80 through 15 has produced DX this last few weeks. On 3.5 Mc., Ws, Js, UA and various Oceania prefixes have been audible each night—also an odd European. 40 mx is good, all night through, with signals from all over, however the Europeans are not easy to QSO. 20 mx is also good at night, especially around 1400z. 15 mx has been open during the daylight hours to West and South America, with odd Js and UA at fair strength.

NEWS AND NOTES

CR8AC is working VKs on 14048 kc. at 1100 hrs. G.M.T.; name is Seco. QTH is Dile, Timor.

VE8JJ is Zone 1, for those who want W.A.Z. 14 Mc. c.w., 0700 hrs. G.M.T.

ZC5FF is active on 14 and 7 Mc. c.w. He says he is on 7006 each night at 1200z.

VS4RS is still going strong, and is usually on 14 Mc. c.w. at 1000z.

KS6AN is in Pago Pago. QSL via K5SEK.

If conditions are right, several good prefixes can be heard on 7 Mc. around 1930z, viz EI-7JA, ZE3JO, 5A2TS, CT3AD, Gs, etc.

Rockall Island trip by K4TWF and ex-5N2AMS has been called off.

Muscat: MP4QBB will be active from Muscat during the first part of Oct., as MP4MAO. K4TJL has received the MP4QBB logs.

Louis ex-TT8AC will depart for a one-year tour at FB8ZZ. This will be followed by a two-year tour in 5R8 land.

VS9AAC departed Aden and is now back in the U.K. as G3MOJ.

San Marino: DJ1ZG/M1 will be on again during the CQ DX phone contest. DL9PF laments that he will not be able to go along on this one.

Kermadecs: ZL4JF goes to the Kermadecs in mid November using the call ZL1ABZ. QSLs to ZL2GX.

Marcus Island, last week of October, through first week of November, by KA2JL and party who operated there previously.

Mariana Islands: KG6SH and KG6SL are to start operating from Saipan shortly.

British North Borneo: ZC5BU, mainly on 14 Mc. a.m. phone with some 14 Mc. c.w., according to 9M2MC.

Cocos Keeling: Any day now, VK9LA on all bands c.w. and s.s.b., using a new HT37 recently ordered from Australia.

ZP5CN's new manager is K4RSM.

TA3AT: Al Hix, W8PQQ, has been receiving QSLs for TA3AT, however Al states he is NOT QSL manager for this station.

Gus W4BPD plans to spend several days at both Rwanda and Burundi. Then Gus plans to go via truck to VQ2, then ZD6, then ZE8JJ, then ZS6IF and ZS6ANE and with ZS6ANE on to ZD9, Gough Is., and then to a brand new one, Bouvet Is. The list goes on and on until the real rare juicy ones, but we had better stop here for the present.

9U5AS (Rwanda) on 14085 and 14005, 2000-2400z, 21 Mc. c.w., also W4DQS 9U5DM on 21240-245 kc. almost daily.

SL3ZO writes: EA9AZ has no intention of going to Rio de Oro. VP8XZ is a pirate. XW-8AS, Clay, returned home, but XW8AT took over his rig.

Ex-EA6AZ was operated by K1QAJ/6, 381 Cottonwood, Vacaville, California. "CQ" indicates that the s.s.b. logs from EA9AZ are also in his possession.

W0MLY plans a trip to Anguilla in December.

Approved by A.R.R.L. as new D.X.C.C. countries, as announced by Dick W1IKE, "QST" Managing Editor and D.X.C.C. committee member, at Southwest Division Convention:—

1. Kuria Muria Islands (British) in Arabian Sea, off S.W. coast of Oman.
2. San Felix Island or San Ambrosio Island (Chilean), about 550 miles off W. Central coast of Chile.
3. Agalega Islands (British) in Indian Ocean E.N.E. of Malagasy Republic.

Agalega: Harvey VQ9HB operated for three days. Instead of signing VQ8BFA as had been expected, he signed VQ9HB/MM, thus causing no small amount of confusion.

Nepal: W6TRK has been on 14230 kc. s.s.b. running 1 kw., signing 9N5TO.

VP8GQ and VP8EG, QSLs go via G3PAG, J. J. Davies, 139 The Fairway, Leigh-on-Sea, Essex, England.

W2CTN is also handling cards for the following: KV4CI/AP5 (no good for D.X.C.C.), JZ0AR, JZ0ML, ZD2KHK/NC, LX3KP and 3A2BZ.

By courtesy of Bob Murphy, K6CQM, North California DXer, we have the following:

Turkey: TA1AH active week-ends on 14280 kc. s.s.b.

Jordan/Iraq: G5KW has been active from YI and JY on 14310 s.s.b. around 0500-0700 hrs. G.M.T., but has not been heard in the States as far as is known. He is worked frequently by MP4BBW and some of the other Europeans.

Qatar: MP4QBB (W5LAK, ex-5A5TA) is QRV on 14020 or 14085 at 1900 hrs. G.M.T.

Indonesia: There is rumour of an Indonesian active with an 8B4 prefix.

Ascension Island: John Packer, ZD8JP, is back again and surprised the DX gang to appear on 14303 s.s.b.

Turkey: Mustafa TA2RZ continues to be workable on 20 c.w. (14043). He is on most days from 2300-0230 hrs. G.M.T.

Cameroons: Regarding Cameroons TJ8, we think that it should be a new country as there have been substantial territorial changes made with the absorption of the old British Cameroons. Old FE8 should join the deleted countries.

Brian VK5AB says, "I have a licence for Willis Is., viz. VK4WE. I am negotiating for the M.V. "Malita' and they are prepared to go at a cost of £100 per day. If this cost can be met, then it could be on, after the Monsoonal Season. I have also received permission to operate at Dili Portuguese Timor, and have also been granted a visa for when I need it to go there. Also, I have accommodation on Christmas Island (Indian Ocean), which is the hard part of that place, plus permission of course, to operate. The first stage of planning is over. If the 'Malita' deal falls through, I will endeavour to go out in June, on the relief boat, and operate for 36 hours on Willis. The second stage is now to organise equipment, etc." (Good luck with the whole show Brian, OB.)

Bill VK3AHO has now attended to most of the QSL chores, pertaining to his YJ and FW adventures. I gather from Bill's letter that he still has itchy feet. If new horizons are calling then good luck, OB.

Guam Island has been added to the D.X.C.C. list in addition to the Mariana Is., Tinian, Saipan, Rota, Pagan, Anataban will be acceptable for Marianas credit from 1945.

ACTIVITIES

Hal VK4DO says the bands are still poor for this time of year. He lists these, 14 Mc. c.w. wkd.: K, KH6, W, VE, CR8AC, CP5EZ, DJ1FN, DJ3KR, DL7GF, FK8AS, FO8AA, HA-8UD, HK3RQ, HK1QQ, HP1IE, I1CFY, KX6BC, OA4CG, OK1US, OK3IT, SP1AGE, UA0EW, UA0OM, UA0ZK, UA3CT, UA9PP, VR4CV, VS1FJ, VS6EM, YO2BB, YU2AKL, YU3HY, YV5AE, 5B4TC. 14 Mc. phone wkd.: W, K, KH6, VE7, OA4BS. 14 Mc. c.w. hrd.: AP5JA, DL6XT, KC6BD, LZ1KBL, OE3WD, OH5OS, OK1NX, OK3AL, OK3UI, PZ1AM, TI2CAH, UA0AW, UA0KJA, UA0UU, UA1DZ, UA4KED, UO5PK, UP2KAF, UD6DU, VS6EC, YV5AE, ZK1BY. 21 Mc. c.w. wkd.: W, KH6, DJ3KR, UL7FA. 21 Mc. c.w. hrd.: DJ4DN, DL7CS, KR6NG, KR6NRA, UA2KAW, VS9MB. 21 Mc. phone wkd.: UL7FA.

Al VK4SS worked this month, 80 mx c.w.: JA6AK. 7 Mc.: ZE3JO, DJ2RE, ZC5FF, G2BCV, UA0FF, 5A2TS, VR4CV, KX6BC, and on 20 mx: CR8AC, 9U5ZZ, JT1KAA, VP6PJ, VE8JJ, KG6RE (Rota?), ZK1BY, EA8DO, KC6BK, all c.w., and mostly around 1200 and 1930z.

Frank VK2QL wkd. on 3.5 Mc.: VE3EK, W2PEO, W2TKG, W7JC, W8AK, W8NBK, ZM-6AB. 7 Mc.: OX3BZ, KX6AJ, GC2FMV, ZC-5FF. 7 Mc. hrd.: BY1PK, HM5BF. 14 Mc. wkd.: JT1AG, UL7CH, CT3AV, KC6BK, KJ-6BZ, AP5SS, KR8AG, CP5EZ, 9U5ZZ, CR8AG.

On 160 mx the first VK-W QSOs have been recorded. VK3AZZ wkd. W2FYT. W3GQF also heard VK3AZZ, but the band faded before the QSO could be completed. VK3AKR wkd. W1BB and W2GQR, and heard W3GQF. The time of these QSOs was 2000z approx.

ZL3RB says that many Ws call on 1810 and 1815 kc. for five minutes, and then listen for five minutes. They call on the hour, listen, and call again ten minutes later. From ZL land, G and Europe is possible for a short period at dusk around the equinox period. This 160 mx DX information was supplied by Don VK3AKN, who has worked some 37 stations, including most VK and ZL areas, with QRP rig. On 3.5 Mc. Don worked ZK-1BW, VR5AA, W8AK, ZL2BAN. Please send any 160 mx info to Don. He is on 3.5 most week-end nights.

Neil VK3HG breaks the ice with the following worked: 1.8 Mc. c.w.: W1EFN, W2FYT, W3MBF. 3.5 Mc. c.w.: K2FC, W2RND, W2TKQ. 7 Mc. c.w.: SM3CAE, SM5CCE. 7 Mc. s.s.b.: G8PO, G3AOO, G3DO, GI3CDF, G2PU, GW-3EHN, JA2BAY, JA1INJ, JA1CFN, JA2BTV. 7 Mc. c.w. on long path, W3MSK. (Nice work on 160 mx, OM.)

Alan VK3AZD reports activity from Zone 19, by UA0IE in Magadan, in N.E. Siberia. Time for the QSO around 1930z, on 14 Mc. c.w. Magadan is right at the head of the Sea of Okhotsk.

ADDRESSES

VR3O—Via WA6MAZ.
CR8AC—Seco Capitania, Dili, Timor.
9U5ZZ—Via W4ECI.
JT1KAA—Name is Sampil, QTH JT13, Ulan Blator.
KS6AN—Via K5SEK.
EA8DO—Box 215, Teneriffe.
CO3NR—Box 6996, Cuba.
ZC5FF—Via VS1FF or G3KOJ.
ZK1BY—Via W8EWS.
KC6BK—Stan, QSL to KG6 Bureau.
9U5JH—Roy; Burundi. QSL via W4YWX.
9U5CB—P.O. Box 1122, Usumbura, Burundi.
4W1AA—Box 7, Sana, Yemen.
6W8DE—Box 3033, Dakar.
6O1ND—Box 397, Modagisco.
CP5EZ—Via W2CTN, or Box 930, Cochabamba.
VR3L/VR1—Canton, Brit. Phoenix. Via WA6-MAZ.
DJ1ZG/M—Walter. QSL via DL9PF.
ZL4JF—QSL via ZL2GX with three I.R.C's.
ZK1BS—QSL via W7ZAS.
W4ECI—QSL manager for Gus W4BPD. QTH 1161 Shades Cres., Birmingham 5, Alabama, U.S.A.
FO8AG—QSL K9ECE.
9U5XX—QSL Box 408, Usumbura.
LX3JE—QSL via DJ2JE.
EL5A—QSL to W2CTN.
HI8XAG—QSL K4BMS.
KL7DBG/KS6—QSL to Detachment A, JTF/8, A.P.O. 953, San Francisco.
VK8NK—Box 31, Alice Springs.
ZK1AR—Via K4LRA.
5B4TC—New prefix. Via R.S.G.B.

SUMMARY

WWV and WWVH supply Ionospheric Predictions on c.w. on Freq. 2.5, 5, 10, 15, 20 and 25 Mc. at 9.4, 19.5, 39.4 and 49.5 mins. past the hour. New forecasts are issued at 0500, 1200, 1700 and 2300 hrs. G.M.T. They are for circuits from W via the Atlantic and North Pacific. It's worth a listen at least.

A particular thanks to Bev. Cavendar and Bob Murphy, Editors of DX-ers, who supply a considerable amount of material for this column. My thanks also to the local helpers who take the time to drop me a line or two of relevant info. This month they are Bill VK3AHO, Brian VK5AB, Hal VK4DO, Frank VK2QL, Don VK3AKN, Neil VK3HG and Alan VK3AZD. 73, VK4SS.

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SIDEBAND

(Continued from Page 14)

the Swan s.s.b. transceiver can be used as a fixed station, it is primarily designed as a mobile equipment, in that it is a single band affair, available in four models covering 80, 40, 20 and 15 metres. The idea being to choose the band that will best suit your needs for mobile operation and to install that particular model. 130 watts p.e.p. input to a 6DQ5 tube in the final amplifier puts out a signal that sounds more like a couple of tubes instead of just one. The rx sensitivity is less than 1 microvolt, while both on transmit and receive a nominal 3 kc. bandwidth is achieved with a high frequency crystal lattice filter. Being a transceiver, the transmitted frequency is exactly the same as that received, this means that one can tune into a net or single station and be automatically zeroed-in without looking at the dial.

Hallicrafter SX115. Now let us turn to a couple of receivers to round off this day dream (if you are as poor as me) and look into an SX115. This is Hallicrafter's top Amateur receiver and has everything that a modern day rx should have. It is compact, Amateur-band only plus WWV in nine 500 kc. segments, crystal controlled front-end, a high order of mechanical and electrical stability and selectivity variable in five steps from 500 to 5,000 cycles. The sensitivity is less than 1 microvolt on a.m. and less than ½ microvolt on s.s.b. or c.w. In keeping with modern practice, silicon diodes are used in the power supply section. A direct reading linear dial is used with 1 kc. read out.

Drake 2B. The Drake 2B has upheld the high reputation gained by its predecessors, the 1A and 2A. This rx has many features found only in rx's costing about twice the price. The mechanical stability is amazing, heavy bumps not shifting the frequency at all, not that one would subject this little (12" w. x 7" h. x 9" d.) receiver to heavy bumps. The first conversion oscillator is crystal controlled and the variable first i.f. is 3.5 to 4.1 Mc., giving 600 kc. coverage at each of 12 band switch positions. Five Amateur bands are covered and seven other ranges in the 3.5 to 30 Mc. are available using accessory crystals. Selectivity is variable in three steps, 500 cycles, 2.1 kc. and 3.6 kc., and the sensitivity is less than ½ microvolt for 10 db. signal to noise ratio. An interesting feature is the use of "pass band" tuning. This enables the operator to tune the 50 kc. third i.f. pass band above or below the fixed b.f.o. frequency. This can assist in eliminating adjacent channel interference.

Some eyebrows may be raised at the lack of mention of the Collins name. This was intentional because this Company is just now putting some new equipment on the market including some v.h.f. transconverters and when more information is at hand I will bring you the story.

OMISSION

You will remember in last month's notes, that mention was made of crystals being available from Arie Bles for use in low frequency lattice filters. I omitted to include the frequency range of these crystals which was between 380 and 440 kc. Arie was inundated with requests for these sets of crystals and has now none left. However, a lot of Amateurs were expecting crystals around 455 kc. and were disappointed with what they received. This is entirely my own fault and I must apologise to Arie for any criticism which he has received and to those Amateurs who were upset with the frequencies of their crystals. For those who may not now wish to use these lower frequency crystals, I urge you to return them to Arie or pass them on to another Amateur who can make use of them. These crystals are far too valuable to have left lying on a shelf or in a drawer, not being usefully employed.

R.S.G.B. 21-28 Mc. Phone Contest

Duration: The contest will start at 0700 G.M.T. on Saturday, December 1, and end at 1900 G.M.T. on Sunday, December 2, 1962.

Eligible Entrants: The contest is open to licensed Amateurs in all parts of the world.

Contacts may be made using any telephony system for which the entrant is licensed. Only one contact on each band may be made with a specific station. Duplicate contacts must be logged and clearly marked as duplicates without claim for points.

Contest Exchanges: An exchange of RS reports followed by a three-figure serial number starting with 001 for the first contact and increasing by one for each successive contact must be made before points can be claimed.

Entries must (a) be clearly typed or written on one side only of foolscap paper; (b) log sheets must be ruled in columns headed (in this order): "Date/Time (G.M.T.)," "Call Sign of Station Worked," "My report on his signals and serial number sent," "His report on my signals and serial number received," "Band," "Leave Blank," "Bonus Points," "Points Claimed"; (c) be addressed to the Contest Committee, Radio Society of Great Britain, New Ruskin House, Little Russell St., London, W.C.1, England, the name of the contest being clearly shown on the top left hand corner of the envelope which must be postmarked not later than Dec. 17, 1962.

Scoring: Overseas stations may only claim points for contacts with British Isles Stations (G, GB, GC, GD, GI, GM, and GW). Each completed contact with a British Isles station will score five points. In addition, a bonus of 50 points may be claimed for the first contact with each British Isles country-numeral prefix on each band. A further 50 bonus points will be scored for each additional ten stations worked in each of the above categories of band.

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Sub Editor: BILL ROPER, VK3ARZ,
Lot 59, Orchard Street, Mount Waverley, Victoria
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

NEW SOUTH WALES

50 Mc.: No Interstate break-throughs but quite a lot of sideband activity, both single and double, with 2ZAU, 2ZQX, and 2ZVL active. It will be interesting to see the advantages of s.s.b. and d.s.b. when the band opens.

144 Mc.: 2WH at Forbes was worked from Sydney for the first time since last new year, on Sunday, 7th Oct. Signals were peaking 5 and 8 both ways over a path of 190 miles. I understand several stations in Bathurst will be also coming on later in the new year and the coming season should prove interesting.

Dave 2AWZ is running a QQE06/40 mobile, both on 7 Mc. and 2 mx and hopes to clean up at all the Conventions. He is using only one extra battery but has not been seen pushing the car. Roger 2ZRH now has d.s.b. with a 4X150 final going very nicely and has skeds to try and work 3ZCG on 2 mx during the summer. Charlie 2NP has had a 522 left on his doorstep. Rumour has it that he intends using it mobile on a long lead.

Not to be outdone by the several stations using sideband, several stations have been heard using multiple carriers quadruple sidebands. They usually only get one station at a time to reply. New Canberra station heard in Sydney is Doug 1DG on approx. 144.02 Mc. Equipment details as yet unknown.

The last V.h.f. Group meeting on 5th Oct. was particularly interesting as well known sidebander Arie Bles, ex-PA0, gave a lecture on "Filter" type s.s.b. The meeting was not well attended so many people missed out.

In response to my previous item asking for intrastate information, the only reply I received was from well known s.w.l. Chas. Aberneathy who is very active on 6 and 2 mx and heard all ZL districts during the past 6 mx season. As I have leave of absence for two months, Phil 2ZBX will be the new scribe.

Flash: 2ASZ now has found a new 6 mx converter which he is going to mount in a 6 ft. P.M.G. rack. It has four r.f. stages using 58's and it even works.—73, 2ZLB.

VICTORIA

Eastern Zone.—Very little news re v.h.f. bands this month from the Eastern Zone, because of band DX conditions, I only worked into Melbourne once, also local activity was low, and some of the boys either lost or had their aerials damaged.

John VR1G at Ocean Island is building up 6 mx equipment and he hopes to be active during Nov. this year on approx. 52.9 Mc., running a QQE06/40 around 60-100 watts, with a good site back to Australia. He is also active on 14 Mc. Skeds are being arranged. 73, 3ZCG.

QUEENSLAND

Six metres in Brisbane is just relaxing along with not much spectacular activity. George 4ZGD is back in town after a long stay in the north of the State. He has at last decided to transmit from his QTH instead of his car. New stations on 6 mx are Jim 4ZJF, who uses 30w. and a dipole antenna; and Peter 4ZCS, who gets out magnificently using a 6 el. yagi.

Back in Brisbane after a holiday in the southern States is John 4ZAG and XYL Marie. John's safe return can possibly be attributed to the fact that he didn't cross many VK3 bridges.

Sept's. hidden tx hunt was organised by Royce 4ZRH and v.h.f. associate Carlo, who was not able to attend because his wife June had just radiated another harmonic; congrats. Carlo and June. The tx hunt was well attended, seven cars taking part.

V.h.f. Group meeting for Sept. was well attended, but poorly organised. Its one redeeming feature was the showing of colour slides taken at the Scouts' Easter venture at which v.h.f. types provided communications as a means of checking the arrival of various Scout patrols through miscellaneous check points. It is hoped that next year's communications will be as good as this year's.

Visitor to Brisbane is Dale 4ZDG, from Ayr, who visited last V.h.f. Group meeting.

Interesting mutterings heard on the air around Brisbane recently involve the obtaining of small bits of pipe necessary for Amateurs to get going on 2400 Mc. It is hoped that cubical quad enthusiasts building for this band will make some other type of antenna.

Have heard over the grapevine that there has not been much activity on 6 mx in Cairns lately but someone still calls CQ forlornly on 51.4 Mc. or thereabouts, so tune higher up the band sometime and you may discover the lost tribe.

WESTERN AUSTRALIA

Sept. Meeting: 38 members and visitors attended. Bert 6ZDF and Lance 9LA were voted into the Group. The major portion of the evening was devoted to an auction of members' gear. Dennis 6AW acted as auctioneer, and all gear sold earned the Group 10 per cent. of the purchase price.

Cocos Is. Beacon: By the time this goes to print the equipment for the beacon will be on its way. The tx and keyer are completed, the converter and power supply are almost ready. Any reports on the beacon's operation will be greatly received by this Group.

Pathfinder Trial.—Several members of the Group assisted the W.A. Car Club by providing radio links between controls and the results team. Four base stations and 11 mobile units operated to cover the course. The freq. used was 48.88 Mc., which was allocated to the Car Club by the P.M.G. for this exercise. Valuable experience was gained by all in operation techniques and mobility in transporting radio equipment and setting up in unusual places. Those who took part were 6PH, 6ZCS, 6ZDM (the organisers); 6ZDK, 6ZDQ, 6ZAG, 6DI, 6ZDX, 6ZDW, 6MM, 6ZBK, 6ZCF, 6ZDT, 6LK, 6ZDS, 6ZAY, 6ZBT, and 6ZDN.

50 Mc.: Barry 6ZCF, Hank 6RR and Bert 6ZDF are new stations on this band. Activity is on the increase. Reports of new gear either built or being built shows promise of maximum activity when the DX season opens.

144 Mc.: More stations are now operating on this band and some good contacts have been reported. The by-word now is, "See you on 2."

576 Mc.: Charlie 6LK and Rod 6ZDS have gear operating on this freq.. Although two-way contacts have been held, they mainly operate cross-band.

Bill 6ZDC has taken a position in Kalgoorlie approx. 320 miles east of Perth. He will have both 6 and 2 mx gear running by Xmas and hopes to work east and west from there. The lesser distance from VK5 could prove a winner for Bill; best of DX.

To All States East of VK6! Our beams are being pointed eastward!! We check all signals from that direction. Turn your beams our way. Who knows? **You** could contact the first VK6 this DX season! 73, 6ZDM.

TASMANIA

The last v.h.f. meeting was well attended and several important subjects were discussed, including the official frequency. After much debate, 144.10 Mc. was decided on for a calling frequency and 145.0 Mc. for mobiles. The folly of this decision will be realised as time goes by.

David 7ZAI and Danny 7ZDM have returned from the north of the State but unfortunately they did not have much time for DX hunting. They worked most of the Launceston stations and 7DK at Poatina, using at one stage a converter, AR7, BC433 set-up.

144 Mc.: Skeds are being kept between 7ZEE at Oaklands and 7LZ and possibly some others in Launceston. No signals have been heard to date but success is assured if we persevere. Frequencies used are 7ZEE 144.324 and 7LZ 144.67 Mc., and the northern stations transmit for five minutes at 1930 and listen for five minutes, then transmit again at 1740 each Saturday night.

News was received rather late to co-operate fully with some VK5 chaps who had a field day on Mt. Difficult on the week-end of the 6th, but I hope to be able to co-ordinate efforts for the next one. Some four over four antennae are being obtained from VK2 for various field day enthusiasts and should help matters in this regard.

50 Mc.: Nothing spectacular has been reported for this band except the amazing amount of r.f. a certain Ned is getting from his QB3/300 tx which is under test. David 7ZAY is experimenting with a Command exciter and is hoping for good stability. 73, 7ZEE/T.

PAPUA

After an absence of signals for three months, Sept. brought an opening to JA. On 25th, weak JA signals were heard on 50 Mc. from 2015 to 2200 hrs., JA1FEN and JA6NK being worked by 9AU. TE scatter signals on 49.8 Mc. were heard on several days during the month. On 16th very weak audio was heard from Channel 2 t.v. during the afternoon and at 1940 a weak carrier was heard on 50 Mc. bearing south. No other openings were observed during the month.

Jim 9AS at Wewak, T.N.G., is now conducting tests on 50.240 Mc. from 1630-1700 and 1900-2000 hrs. daily, running tone, but so far he has not been heard in Moresby. 9GK, in Moresby, now has a tx for 144 Mc. and is expected to be heard in the near future.

October has brought the advent of the one-eyed monster closer to this location. A test transmission from TNQ7 Townsville was received S9 at 1645 hrs. 1st Oct., and on 2nd Oct. (the day of writing these notes), the test transmission was S9 from 1130 to close-down at 1500 and again from 1600-1700. A t.v. rx was hastely borrowed and an excellent quality picture was received at 9AU's QTH from 1400-1500 today, very little snow and a better picture than your scribe has received on many occasions in Sydney.

How about some 144 Mc. skeds from you northern VK4 chaps on 144? Drop us a line to Box 216, Port Moresby, if you are interested. The antenna on Ch. 7, by the way, is only a 5 el. yagi up about 20 ft. 73, 9AU.

☆

Correspondence

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

ANY TAPES OF V.H.F. SIGNALS?

Editor "A.R.," Dear Sir,

We in VK5 are keen to make a tape recording of notable v.h.f. achievements over the past five or six years (including the last sunspot maxima). This tape would be similar to a recording made by Ed Tilton that has been heard in Australia recently.

Whilst a good deal of very interesting material has been offered by several leading v.h.f. men, it is felt that some less active Amateurs, or s.w.l's., may have tapes of interesting v.h.f. signals.

The signals in which we are interested are: 50 Mc. DX including JAs, ZLs, or any signals originating overseas, including commercial v.h.f. or t.v. signals, also 144 Mc. and long haul signals, Oscar I. or II. in particular. Is there any record of the VK2-ZL 2 metre contacts?

In short, if you have, or know of anyone who has, recordings of any interesting v.h.f. signals, please contact the undersigned.

—Al Rechner, VK5ZCR.

☆

ERRATA

In the article "Matters Mobile," in the August issue, the earth has been omitted on the cathode of the detector diode in Fig. 3.

The author of "A V.h.f. Sideband Rig," which appeared in the October, 1962, issue draws attention to a couple of errors in the schematic of the 50 Mc. sideband tx. The pi output tank of the second 6AC7 v.f.o. chain should have a 1000 pF. coupling condenser, not a 14 pF. as shown. Also the pi coupling capacitor for the 50 Mc. final is 500 pF., not 50 pF. as shown.

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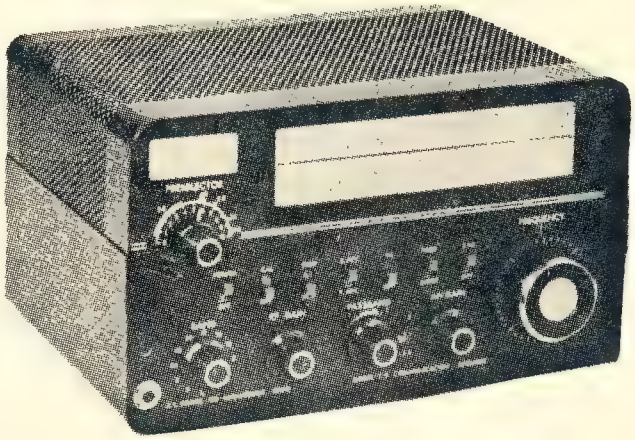

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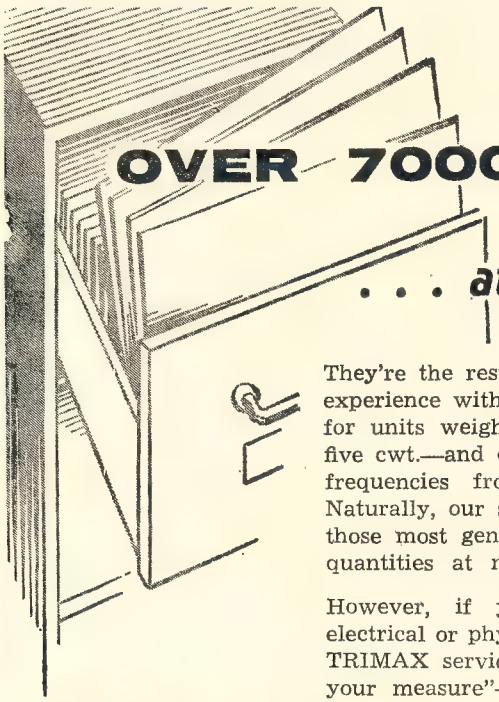

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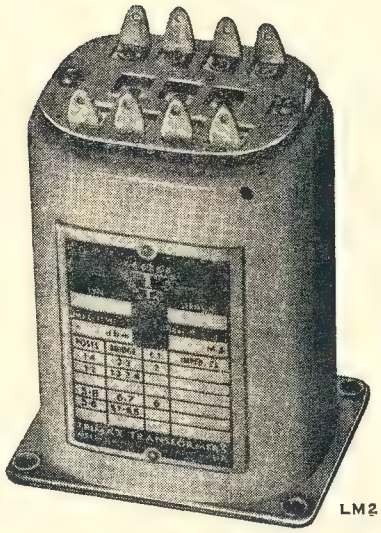

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FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

★ ★

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL

80 AND 160 METRES FOR BROADCASTS

VK5 Division has requested consideration be given to the use of 80 and 160 metres for Sunday Broadcasts and call-backs, and it was decided to hold the matter until a survey of frequencies used by the Divisions can be compiled.

FEDERAL CONTEST CO-ORDINATOR

VK3ABV, Tom Straughair, has been appointed Federal Contest Co-ordinator, an F.E. position designed to maintain closer contact between the F.C.C. and Federal Executive, in the interests of more accurate records, speedier award issuing, and smoother organisation, some features of which have been sadly lacking in past years.

CONTEST CERTIFICATES

Lists of members due certificates for various contests over the past two or three years have been prepared, and most certificates will be forwarded shortly.

New certificates for some awards will shortly go to press and after considerable study of a large range of potential designs, the new R.D. certificates are now in the hands of the printer.

MEMBERSHIP CERTIFICATES

A new professional looking certificate design has almost been decided on, and new style certificates will be available on top grade paper before long.

80 METRE RELAY OF Z CALLS

The VK3 Midland Zone has requested that permission be sought for the relay of Z call transmissions on 80 metres during Zone hook-ups.

F.E. considers that this facility should be available to all Divisions, if at all, and the Department has been written to regarding the matter.

FEDERAL CONVENTION ITEM

A VK7 agenda item concerning the use of 10 metres by Z calls, and which was omitted from the Convention agenda, has been circulated to all Divisions for decision.

SPACE COMMUNICATIONS

A conference on space communications is planned for Geneva in October next year and the I.A.R.U. has reminded member-societies, of which the W.I.A. is one, of the importance of liaison with Government authorities to ensure that Amateur interests are protected. The I.T.U. Conference and the R.F.A.R.C. have proved valuable experience for the W.I.A. in this direction.

OVERSEAS NEWS ITEMS

Belgium Amateurs are now permitted to use s.s.b.

Some G Amateurs are now permitted to employ narrow band picture transmissions in the bands 80 metres and up.

The Swedish Amateur Society is planning 500 watt beacons on 145 Mc. and 432.5 Mc. between 1500 and 2400 G.M.T. daily.

The W.I.A. has voted in favour of the admission of the Radio Sport Federation of the U.S.S.R. to the I.A.R.U., but has added comment regarding their issuance of call lists, and observance of gentlemen's agreement sub-bands.

A list of Amateur Society fees showing El Salvador to be the highest ($24) and Spain the lowest (.42c.). We seem to be in the middle, listed as $5. El Salvador, incidentally, has the smallest number of members—25.

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FEDERAL QSL BUREAU

Eric Trebilcock, BERS195, the Victorian Division Inward QSL Manager, will be in Western Australia from Nov. 1 until Dec. 14 next. During his absence the duties will be performed by his predecessor, Noel Storck, VK3ZO, and the Bureau will operate from the rooms at 478 Victoria Pde., East Melbourne.

Alan Reid, VK3AHR, presently in U.S.A., visited Golden, W8EWS late in September. Alan then pressed on to Seattle, Wash.

The Okinawa Radio Club announces the new Okinawa Award. Qualifications for the award by VK stations consists of confirmed contacts with five KR6 stations. Certified list together with your own card should be sent to Awards Manager, P.O. Box 37, Kadena, Okinawa. There is no charge for the award.

Please note the address change for the following A.R.R.L. QSL Bureau: VE8 QSL Bureau, George T. Kondo, VE8RX, Dept. of Transport, P.O. Box 65, Fort Smith, N.W.T., Canada.

Membership in the QRP Club (U.S.A.) is growing apace. Upwards of 320 members have been enrolled in approx. 13 months. Membership qualification is the use of 100 watts maximum, or less, at all times. VK members to date are: VKs 2QL, 3NC, 4SS, 7SM, 4CK and 3RJ. Full information may be obtained from any of these stations or from the Secretary W6CIS.

—Ray Jones, VK3RJ, Manager.

— . . . —

NEW SOUTH WALES

HUNTER BRANCH

At the Sept. meeting we saw the best roll-up of members, associates and visitors that the Branch has had for some time. This was encouragement to Barry 2ZAH and his team of helpers who travelled from Sydney to lecture on the latest developments in v.h.f. Barry claimed he was not a good lecturer, but he certainly performed a wonderful job. As well as a most interesting discourse, samples of each piece of equipment described were passed around. And, as if to demonstrate his faith in the honesty and integrity of the Hunter Branch boys, all the crystals were left in the gear! Trusting lads from Sydney! Thirty-eight in the audience almost filled the lecture room.

After the technical bit a disposals sale was held with Gordon 2ZSG as magsman and with me holding the cash. I really cannot understand the President allowing this. However, after some Arabian type bargaining, most of the goods on hand were sold and those among our ranks who are known by the complimentary term of scavengers finished off the 866s with no caps and the like for some paltry sum. It is reported that the said scavengers returned to their homes and worked far into the night to get their threepence worth. Others of course were already working far into the night preparing gear for the Field Day and working out diets so that it would be possible to consume as much as practicable on the night of the Dinner, while others still were doing all sorts of tasks in preparation for the annual event.

The Dinner, held at the Esplanade Hotel, was, I feel, a most successful evening. Those to speak were Stuart 2AYF, Pearce 2APQ and Max 2MP in that order. A very enjoyable night was had by the sixty who attended although Dennis must have enjoyed himself most, for it was he who smoked the most cigars. Some of our more adventurous members adjourned, after the Dinner, to the Cassandra, a British destroyer visiting the port. They were saluted as they went aboard and then thrown off. Such hilarious goings on have not been seen for some time in our fair city.

The weather for the Field Day was perfect. A great number of cars equipped for tx hunting turned up to do battle and fiendish were the plans of those hiding the elusive r.f. generators. One false trail was followed by the 2 mx boys for some time which finally resolved itself as a superregenerator in a competitor's car. In the 7 meg. hunt a cleverly disguised dummy tx fooled at least one competitor and caused Sherwood to almost fall into the creek. And that included as well the electric shaver he was using as a microphone. In the scramble, a duel developed between Bill 2XT and Dave 2AWZ. They finished with Dave first and Bill second. It was not till later, when we saw Dave's tail lights glow on transmit that it was found he had been using 100w. in the boot of the Morris Minor! Les 2RJ found the first 2 mx fox and second in was 2ZCF.

The afternoon 2 mx hunt was the subject of television coverage and a cameraman from NBN was there to film the fun and games. This was won by John 2ZAB with 2ZDN 2nd. All the cars were paraded before the all-seeing eye but despite a good effort on the part of the reporter, very poor coverage was given of the event on the t.v. and even then it was a week after the event, despite promises to the contrary. This was hardly the publicity we had expected.

Dave 2AWZ and Bill 2XT were the only competitors to find the 7 meg. rig and they arrived in that order. Some really first class home-built gear was on display and after considerable thought the committee awarded the prize to Ken 2ANU, our Morse merchant from Muswellbrook. The day ended with the usual free for all disposals sale with ridiculous bidders securing all the bargains. The big sound from 2NX, Tony 2ZCT won the lucky number so I am told.

As for general news this month, things are quite poor. Shannon Bill 2ZL finished off his latest loco only to have it leave the rails in a sensational manner. Harry 2AFA found that he had so much gear in the shack that he couldn't get on the bench so he sold half of it, the gear, I mean. Lionel 2CS is back on deck again and looking quite fit. Les Payne has the only blue flourescence magic eye in the area—caused by doing some strange short circuit on cathode and grid and, I almost forgot, at least three of our associates have decided at last to do some work towards their ticket. I won't mention who they are at this present, but time will tell—and it just may too.

The Monday night re-broadcast of 2WI's news is still being conducted by 2AWX and the chaps running the broadcast are delighted to receive call-backs. If you are in the shack around 1900 Mondays, listen for 2AWX on about 3573 and if possible give them a call.

Next meeting of the Branch will be held in the usual place, University College, Tighes Hill, at 8 p.m. on Friday, 9th November. Listen to 2WI or 2AWX for details of the lecturer for the evening. I do not expect there will be any social gathering this month, but check up at the monthly general meeting on this. 73, 2AKX.

SOUTH WESTERN ZONE

The 10th Annual Convention of the South Western Zone of the W.I.A. was held over the holiday week-end, 29th and 30th Sept., at Gundagai. Those present representing the Division were Harorld 2AAH, Bill 2AGF (also his XYL and two daughters). It was pleasing to have quite a number of Amateurs present from other Zones, as well as the South West.

The Convention opened on Saturday morning at the Gundagai C.W.A. rooms, where registrations and rag chewing were held over cups of tea provided by the XYLs. During the afternoon, visits were made to the beauty spots of the surrounding district, terminating at the Dog-on-the-Tucker Box, where a delicious afternoon tea was provided free by the Chamber of Commerce, for members. The evening activities commenced with the Convention Dinner, which was chaired by Bill 2AHV, sixty-six adults and twelve harmonics attended the dinner, during which the Shire President, Cr. Crowe, officially opened the Convention. The toast of the W.I.A. was proposed by Ross 2PN and was acknowledged by Harold 2AAH, who then gave an interesting address on activities of the W.I.A.

Sunday morning saw the field events under way. The 2 mx hidden tx hunt was won by associate Doug Manneke, of Wagga, with Bruce 2ZQX second. Next was the 2 mx fox hunt, and this was won in record time by Tim 2ZTM with Eddy 1VP second. The all-band scramble was won by Harold 2AAH, with Col 2ASF a close second. The most efficient h.f. mobile equipment was won by Harold 2AAH, with Eddy 1VP taking the prize in the v.h.f. section. The ladies' blind-fold tx hunt was won by Joyce, XYL of 2ACO. The girls' event was won by Lorraine, harmonic of 2ACO, and

SILENT KEY

It is with deep regret that we record the passing of:—

VK2LH—T. G. (Doc.) Hewitt.

VK6AP—Alf Pittard.

the boys' by Peter, harmonic of 2AHV. Competitions for the ladies during the day were won by Joyce, XYL of 2ACO, and Barbara, XYL of 2DU. The prize for the lady travelling the furthest distance went to Jean, XYL of 2ASF, and the prize for the lucky number went to Mrs. Mills, mother of 2ZTM.

A barbecue lunch helped to create a picnic atmosphere which continued throughout the day. The disposals sale in the afternoon was well attended and cars left more heavily laden than when they arrived. A word of thanks was given by the Zone Officer, Bill 2AHV, to all who had helped make the Convention such a success, particularly Dave 2DE and Joyce, his XYL.

BLUE MOUNTAINS SECTION

The monthly meeting of Sept. was held at Lawson on the third Friday night, 17 members were disappointed when Les 2ZBJ was unable to give his lecture due to a business trip. Anyway, Les will be along for the next meeting and it will be transistorised equipment including 2 mx as before. The evening was still as late as usual, somehow there is always plenty to rag chew about. Supper these days seems to be on the up and up, probably our club is the difference between a profit or loss for Sid's 2AVK business.

The Bush Fire exercise proved very successful. Bill 2HZ and Dick 2RM acted as base stations, whilst 2MZ, 2AVN, 2ASZ, 2NK and 2ABK as mobile stations. The operation was on 2 mx and the coverage was very good with the mobiles maintaining contact all the time. While on mobiles, another civil defence exercise is coming up similar to the previous one at Katoomba, so keep those mobiles going, fellows.

Warick 2ZMS is still busy with study and exams., etc., although not on the air I understand he is a good listener. Best of luck Warick and hope to hear you soon. Also hear that Warick has been giving Jack Watts a hand with his A.O.C.P.

Two new calls will be issued to club members soon, viz Jack Ferris and Noel Walker, both are ready to go on 2 mx. Congrats., chaps, it's been a long road but I am sure you will agree it was worth it. I notice Bob 2ASZ has a new heap to support his 40 mx whip, etc.; looks a bit of all right.

Our next Field Day will be held at Lawson Swimming Pool on 28th October and should be equally as successful as previous years; all are most welcome.

My spies tell me that Bob 2ASZ represented the Section at Newcastle over the long week-end, but as yet have not heard any reports. Yours truly and Noel Walker journeyed to VK3 land the same week-end and the only troubles were with equipment upon arrival, otherwise an enjoyable run. We met some of the boys at Gundagai on the way back and by all accounts their Convention was a big success. Frank 2ACQ wants to know where Trevor 2TM has been; where are you, Trev.? Haven't heard you yet. Derick Boyd and Sid 2AVK are hot on the job with the School Radio Clubs in the area, so it shouldn't be long before everything is organised. 73, 2ADA.

BOORAGUL HIGH SCHOOL RADIO CLUB

This possibly may be the last time that notes from this club appear under a separate heading as youth radio club activities in general are to be reported from now on by Ken 1LS. This we think is a good thing and can only assist in furthering the motives of the school clubs scheme. Our club is now at its largest since formation and we now have over 24 regular members. Radio questions are to appear in the yearly Science exams as an alternative to another question and this year, for the first time, we have had our photograph taken as an official school group.

The tx is back on the air and we are following the new "Operator's Certificate" scheme, so please give us a call if you hear CQ from Booragul. The members now handle all the internal and external p.a. at the school and are responsible entirely for the tape transcription service and general recording. Another of the boys has been selected for an electrical apprenticeship among competition from 34 other candidates. Thank you Mr. Editor for tolerance with our notes. 73, 2ATZ.

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OBITUARY

DR. T. G. HEWITT, VK2LH

"Doc" or Tom Hewitt, as he was known to his many Ham friends over 30 years, was in all respects the living example of the great St. Luke in thought, word and action, and to know him was to love him. "This is Luke—my beloved physician" and as such he will be sorely missed throughout the North Coast of N.S.W.

Pre-war he was well known throughout the world with an outstanding signal from his rotary beam as VK4TH Cairns, and post-war as VK2LH Lismore. Over the past few years his activities were gradually curtailed to the 80 mx band on s.s.b., largely as a result of his failing health and the exigencies of his calling.

His interests were many and varied and his versatility was such that apart from his skill as a surgeon and physician, he could weld or "turn" with the best of them.

His grasp of the technicalities of automobiles, photography, cabinet making, boat building and radio was truly staggering and how he found the time and energy to absorb this knowledge as well as keeping abreast of the latest in medical practise placed him in a sphere apart. The physical and moral courage displayed over the past couple of years, whilst in the grip of the final stages of his fatal illness, are well worthy of the approbation of all and he must always be remembered by all who were privileged to know him as "that great and good man."

On behalf of his many friends in Ham Radio, it can be said that his wisdom and kindliness will be sorely missed and his friendship never replaced.

May his key never be silent in that Grand Lodge Above.

So passes a perfect gentleman, a wonderful friend and a True Ham.

To his wife and family, our deepest sympathy for their irreparable loss.

A. W. PITTARD, VK6AP

It is with sincere regret that the VK6 Division records the passing of VK6AP, Alf Pittard. Alf was very active on all bands 30 years ago and this last 10 years or so has devoted much time to the 20 mx band. For a few years of late, Alf did not enjoy the best of health, although he did attend quite a lot of Institute meetings.

VK6 is the poorer for his passing, and sincere sympathy is extended to his wife and family in their bereavement. Vale Alf.

VICTORIA

About 25 members were present at the Oct. meeting to hear Jim Godding, VK3ZGG, tell of his experiences in W land and to have a look at his radio souvenirs. Jim illustrated his talk with a number of slides showing scenes in his itinerary. The most amazing thing about his visit to U.S.A. was the number of VK3s he met whilst there. Thanks for an interesting evening Jim.

There was very little general business, and although Ron 3RN tried hard to start a debate, it died prematurely. Still, as he said, he made his point. Just watch him next R.D. Contest.

Amongst the large number of new members this month was one, Rex Moncur, VK3OB. Although Rex has had a ticket for quite a while, Ham Radio has had to take a back seat until studies were over. Come to think of it, Phyl Moncur has not been seen at a meeting for years. What about it Phyl?

When I left the meeting, there was still quite a gathering around Jim's display of equipment. Hope he got it all home safely.

COUNCIL MEETING

October Council meeting had only one absentee, although two members present should by rights have been home and tucked in their cots. One good thing about having invalids in attendance was the fact that only urgent matters were dealt with, thus making an early night of it.

Summarising the evening, Eric Trebilcock is going Interstate for a few weeks, therefore the QSL Bureau will operate from 478 Victoria Parade from 1st Nov. until 14th Dec. Noel Storch will be in charge. At the suggestion of Moorabbin Club, arrangements will be made for the State Field Day Trophy to be inscribed with the winner's name each year. The poor condition of the typewriter and duplicator at 3WI was discussed. After reviewing the cost of repairs Council decided to replace both units.

Field Day rules were reviewed. Anomalies in the present rules have been drawn to Council's attention by several people. Council is taking this matter up through the proper channels.

Only four names were submitted for membership this month, the lowest for a long time. These names will be submitted to next general meeting for approval. The meeting closed at 10.15 p.m.

GENERAL

The most important event for the month was the W.I.C.E.N. Exercise. As is now well known, for the purpose of this Exercise, the Institute set up a communications network to cover the Shell two-day car trial. 3WI operated as Control, using 80 mx, 2 mx a.m. and 2 mx f.m. There was also a 6 mx link from 3ALZ to 3WI, piping in 80 mx signals. This proved most useful as often 80 mx reception was impossible at 3WI. In the early stages, procedure was pretty rough—to say the least of it, but after a couple of hours, things showed a big improvement. Although I do not know the exact number participating in this Exercise, it was only a small percentage of members.

Those who volunteered for W.I.C.E.N., but whose services were not used this time will appreciate that for an exercise of this type only a limited number can be used. Although it is wrong to single out any persons for praise in a job like this, my vote goes to the coffee makers, followed very closely by a vote for the cooks.

Whilst those of us who participated feel the results were very good, we know we had many faults, and realise there is room for much improvement. For this reason we are getting as many participants as possible to an informal meeting to critically review the event so we can do better next time.

By now, zone secretaries should have their new maps showing zone boundaries. It is possible that cases will arise where there is some doubt as to which zone a member belongs. In this event Council will be the arbitrator. There has been one minor alteration. The border between the North Eastern and Eastern Zones has been shifted to bring Arthur 3AUL into the North Eastern Zone. This was easier than shifting Arthur!

Pray tell me, does the VK5 scribe have a persecution complex? As though I would needle him—much. His wife won't let him play with the VK4 boys, but I warn him here and now, the VK3 boys can play rougher. As for his warning, well I have friends in high places, too. Not only do I list the editor amongst my personal friends, but also the whole committee, plus members of F.E. and the VK3 Council. Before leaving the matter (for this month), had a visit from an old friend from VK5 last week. Said friend, brought a recent newspaper cutting about snakes in Adelaide. Bet that bruises 5PSs feelings.

Sorry to have to report that Bill 3TX is on the sick list. He has had a heart attack and will be confined to bed for a while. We all wish him a speedy and complete recovery.

W.I.C.E.N. MEETING

An informal meeting of those who participated in the recent exercise has been held.

W.I.A., VICTORIAN DIVISION

STATE CONVENTION

will be held at

BALLARAT

during the week-end of

SATURDAY, 3rd NOV., and SUNDAY, 4th NOV., 1962

Sunday, 4th November, meeting points:—

10.00 a.m.—BTV6 Studios, Walker St.

10.30 a.m.—VK3HW's QTH, Walker St., both located under the three white towers on the hill, Ballarat North.

11.30 a.m.—White Swan Reservoir Reserve.

Proceed out Humphrey St., North, turn left at "White Swan" sign post—drive to large "White Swan" on left. W.I.A. signs all the way.

Bring the family and Picnic lunch. Hot water and barbecue facilities available. 80 and 2 mx Hunts, Carphone, a.m. and s.s.b. events, Competitions, Novelties, all with good prizes. Don't miss it!

Approximately 30 attended—including Mr. and Mrs. 3KU. Apologies were received from 3ZEO, 3AKN and 3OM. Unfortunately a couple of operators have not returned their message forms, so exact number of messages handled is not as yet known. Estimates place the total at 1,542, of which nearly 1,000 went through 3WI. Having got the back slapping over, the meeting settled down to the task of strict self criticism. The faults in procedure and equipment were fully discussed. The outcome was that a sub-committee will be formed to analyse the points raised and find ways and means of preventing the same faults happening again.

The whole thing was beautifully summarised by Fred 3YS when he said it was up to us all to clean up our sloppy operating methods, and further, whether we like it or not, use the N.A.T.O. phonetic alphabet.

Two facts have come out of the meeting which are of most interest to those who have volunteered for W.I.C.E.N. There is a definite place in the over-all programme for the Amateurs, and they must have equipment capable of operation from batteries or other emergency power supplies. The a.c. mains are not for W.I.C.E.N. operators.

EASTERN ZONE

Jack 3AJK, of Moe, is now very active on 14 Mc. Since being back on, he has worked over 18 countries. Jack is constructing a 60 ft. tower to hoist his two element quad higher. David 3DY was temporary off the air as he moved QTH in Maffra to 6 Kent Street (on a hill too!). Ross 3ZAQ, of Warragul, was successful in passing Morse, so awaits his new call sign. Ken 3ZNK is also sitting for the next exam. The Zone wishes you a successful pass, Ken. He lost his 32 element aerial during the "blow" in the last week of Sept., and has now a 6 element yagi temporary.

Graham 3QZ returned from a three-months overseas tour during the first week in October. No inter-high school hook-up took place from 3AWL during Sept. owing to exams. October hook-up took place as usual. Several Zone members participated in the Scout Jamboree, namely 3AHE (Traralgon) and 3ZNK, 3BB, 3TH and 3ZDP.

The Zone will hold its second (summer) family field day at Lakes Entrance later in the year. How about more stations joining in the Zone early Sunday morning hook-up? 73, 3ZCG.

MIDLAND ZONE

My activities for the most part of Sept. were confined to my travels to VK2, VK4 and back. The only radio activity were a few DX contacts on 20 mx on the last few days of the month, there was however plenty of activity within the Zone itself, details of which were supplied to me by Jim 3SV.

Zone members participating in Zone activities are 3SV, 3AHA, 3ZK, 3KU, 3ARS, 3ED and 3AQU/P (congrats to you Ian on having received your call, and welcome to the Ham fraternity). John 3OR called in with information on disposals. 3OM and 3UI also paid us the courtesy of calling in to the hook-ups.

3OR has offered to supply full dope of circuitry of disposals equipment at his disposal, also 3ED can supply 122 circuit photostats, thanks fellows. Who else can offer assistance in this regard? Circuit information on AR7 may be obtained from 3ZIK who, by the way, appears to be the only one active on 2 mx. Don't forget 2 mx hook-ups still take place each Thursday at 8 p.m.

Not much heard from Col 3FO, perhaps the junior op has him occupied. 3SV participated in the W.I.C.E.N. exercise and despite the fact that operating conditions were not ideal, the exercise was a success. Others who participated included 3AHA, 3APJ/3WI, and 3KU. Jack 3VV having a nibble at Zone activities; what about a big bite, Jack?

Anyone wanting to do a frequency check within the Zone should contact me as we have a BC221 frequeny meter available. What we do require is a padded transport box for same, any offers? Until such a box is procured special arrangements will have to be made for transport of this instrument as required by members.

Before closing the notes for this month, I woult like, on behalf of the members of the Midland Zone to extend our sincere sympathy to R. Giddings and T. Briggs on their recent bereavements. 73, 3ND.

NORTH EASTERN ZONE

3AAQ packed his gear and toted it away a few weeks ago, preparatory to transferring to a t.v. tx site later in October. 3AYD is now limbering up his wrist in preparation for the slow Morse transmissions he will make later in October. Heard him ordering 2½ dozen egg insulators and hundreds of feet of aerial wire the other day. Actually he is going to build himself a triband quad to supersede the present ZL Special (modified). This move came about from a joint contact he and 3AGG had with the same U.S. station; Allan was umpteen db. down on Bruce's quad signal.

3ALF still suffers from inertia, but I understand he is calling a "working bee" shortly. 3ACD believes he may be causing t.v.i. on 80 mx. He has repaired his rotator gear box. The earlier reported gear stripping was due to mis-alignmeint. 3APF getting lots of thrills from 2 mx and his infectious enthusiasm has induced 3AWT and 3ACK to join in the daily net at 12.30 p.m. I note 3APF advertised for a vidicon tube in Oct. "A.R.," I wonder what plans are afoot at Peter's menage? The Melbourne Cup is not the only place wherein dark horses run.

3AUL, 3KU, 3AWT, 3AYD and 3IG took part in the Sept. W.I.C.E.N. exercise. I was with 3AYD on the Saturday evening and noted the fiendish look in his eye as he pounced on the five interfering stations and requested them to shift their carriers. As message writer with 3AYD, I was really scratching to keep up with the high speed dictation some of the stations gave out. However, we learnt a lot.

Jamboree-on-the-Air: In the Shepparton area, eight stations have kindly consented to have Scout guests along for this event. By breaking up the event into five periods, we have been able to place 54 Scouts. 3AYD and myself visited the seven local Groups and spoke to boys to give ideas on conversation pieces such as hobbies, badges and local news. We also urged them to tune 40 and 80 mx on their home rx's to atune their ears to poor conditions. The above is offered as suggestions to other Amateurs who have noted that boys become tongue-tied when a mike is placed before them.

All being well, 3ASY should be on the air by mid Oct. His biggest trouble has been the fabrication of cases and chassis to suit. What an expensive range available on the commercial market. He tried out green and copper hammertone pressure packed paint; it's the berries, though a bit expensive.

Zone hook-ups have not been too well attended of late and I have reports that fellows are critical of lack of interest in them. I wonder if the absentees were not so modest (or is it dog-in-the-mangerest?). They could make it more interesting by letting others know what they have been doing. 73, 3ASY.

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QUEENSLAND

INTRASTATE CONTEST

The first intrastate contest conducted in VK4 land for ages was held very successfully on the week-end of Sept. 22 and 23. The work put into organising the contest by the Divisional Council was surprisingly rewarded for an estimated 40 to 50 Amateur Stations were on the air in the two periods, six hours on Saturday afternoon and 2½ hours on Sunday morning. The CQ Sunshine State Contest was certainly a good follow-up for all the VK4 boys who came on the air during the R.D. Contest. Council is planning more such intrastate events, but Council members need your suggestions still on how arrangements can be improved. Write to Council yourself.

GENERAL MEETING

The Sept. general meeting on the 28th of the month was held at a rather different venue. At the invitation of Mr. C. A. M. Weller, 4CZ, members gathered at the Tennyson power house to hold both the meeting and to inspect the station, the most modern in VK4. As could be expected, such an attraction drew a good roll-up of 58. The meeting of just 7½ minutes duration accepted the Council recommendation for 17 new members; full: VKs 4NC, 4WB, 4RX, 4LD, 4BL and 4ZGM; associate: H. Kropp, L. T. Sharpley, B. R. Taylor, C. W. Bryant, P. Pik, R. Rubiola, D. Egan, R. Caldwell, W. Harley, W. C. Fall, and J. A. Wyatt.D

In case VK4 members have not been keeping up with the news or bothering to read "QTC," Council wanted to find the feeling on the membership of a possible permanent home for VK4WI. They conducted a referendum but only a little over 20 per cent. recorded their preference, so another call had to be made for a more widespread view. By the time you rad this, it's possible a decision could have been made, and if this decision is not your wish, then if you did not cast your preference, you only have yourself to blame. When Council calls for opinions in the future, all members should do their best to make a deply.

BARGARA CONVENTION

Oh, didn't Queensland faces blush when they saw a particular advertisement in the last "A.R." There it was that the Wide Bay and Burnett Branch, in conjunction with the Central Qld. Branch and the Bundaberg Radio Club, would hold a Convention at BOGara Beach, Bundaberg, on the week-end of Oct. 6 and 7. Now PanSy might think we have a lot of rain in VK4 (some parts anyway), but at this time of the year there's not enough to lay the dust whereas to make a bog is just not possible. Anyhow, abouf 30 Amateurs managed to decipher this meant BARGARA and from first brief reports, they had a good time in fine weather. The Convention was held at the same time as the Bundaberg Sugar Festival to be an added attraction for Amateurs from more distant parts.

One plea to the organisers though. Those not able to be present would appreciate some advice beforehand as to the approximate times of scrambles so they can make it their business to be around to give competitors the stations they need to build their totals.

PERSONAL JOTTINGS

The VK4WI station manager, Alf 4OL, has been enjoying holidays this past month and dashing hither and yon up and down the coast looking for the big fish. His mobile has been working well, thanks to the plastic protection of a coil by a detergent squeeze pack and he's been talking quite a bit at good strength. Jim 4HZ is another whose mobile has been heard over a fair distance of late. While Alf was away, the new voice at 4WI was Vince 4VJ. It's no wonder he puts out a great signal from a beam at the top of a telegraph pole which appears to be about 60 ft. high.

Up Mundubbera way, Herb 4KM has spent most of his time watching a hotted up one-eyed monster but when transmission ceased one night, he managed to race across the bands looking for the American astronaut.

Don 4GP left his t.v. business at the beginning of the month for a trip to ZL land. George 4GG, who visited the country years back, is now waiting the chance for some good long rag chews to talk over the beauty spots. George is one of the more regular contacts of Del 4RJ during week days. Del, by now, should be getting better reception at Burleigh Heads thanks to the efforts of Frank 4FN.

Country members are still trying to play hide and seek with news of what goes on in their areas, despite frequent requests for reports to be written and posted in for use on 4WI and in "A.R." Bulletins of news should be able to inform members of what is going on in all parts of VK4, not just with the Council in Brisbane. If your letter of news reaches me next, then that will be the seventh I've received in six months. Shame, I might have to consider asking PanSy his methods of gathering the comings and doings of VK5s to give me a guide. 73, Don.

SOUTH COAST ZONE

Some months ago, the sub-editor or the "Printer's Devil" managed to insert in these notes that quite a linguistic turn was put on by Bill 4WS, whilst wrestling with the installation of a mobile unit. The responsible person must have had, at the time, some prophetic visions, as the happening did not materialise until now. However, it is pleasing to report the sky is again blue on the Gold Coast as the unit is working well (we hope!).

Last month it was reported that an ex-W Amateur had settled on the coast. I had the pleasure of meeting in person Wal Diehl, ex-W3 and W5 and various other calls. He has a couple of rx's and a few bits and pieces. This may be enough to arouse interest to have him operating again, blow the QRM and also becoming a member.

These notes are being penned from Woody Point at the start of the Sunshine Coast while on the way to the Bargara Convention, and just as they are being read, I feel sure I will be reporting a very successful do as the boys there are very enthusiastic. So far on the way, I have met an old timer and old cobber, Stan 4ST, and sepnt a very pleasant hour with him and am looking forward to another dose as Doris, his XYL, is in Melbourne. 73, 4WS.

TOWNSVILLE AND DISTRICT

At the Burdekin and District monthly meeting the guest speaker was Dr. Carman, senior lecturer in physics at the New University. He gave a discourse on v.h.f. signals on the equatorial path to Japan, etc. The boys certainly enjoyed same and believe he has also asked some of the local boys for a look at their log books for relevant openings to the north and any remarks that may have been noted. So who knows, it may be that we always have that opening and no one monitors it enough to evaluate it.

Other news from there reports that Dale ZDG is in the big smoke learning to fix the one-eyed monster in two or three easy lessons. 4DU is going to Christmas Island with a VK9 call sign, maybe will get a new one if he breaks through as he has promised the boys a call if conditions are right. Often wondered why one of the local boys always does so good in the R.D. Contest until I braked the car suddenly and cast my eyes over the antenna farm he has—it even overflows into his neighbor's yard. I'll defy a bird to get at the garden underneath unless it is the small bat equipped with his sonar beams.

Having missed Bob's (4TK) voice on the air, I find out that he has started a local A.O.C.P. class and has 16 triers, just so that he will have someone to speak to locally as the conditions are so bad. Visitor to the shack was Merv. 4ZMD from out in the far west where all the dust storms originate. Also Bill 4SW was in town, only heard him mobile, too busy sight-seeing to call. Wally 4RU and two Z boys—4ZBE and 4ZDM—have foresaken their old jobs and are on the band wagon with regards to t.v. and electronics. Good luck to you all in the new venture.

Ere these notes appear, we will be visited by our old friend and first Secretary of the local Club, Ernie 4GE, who has promised to look up all the old gang and see if they can still degass the 807s. What has happened to the city boys, cannot get a call back after the W.I.A. news on a Sunday on 14342. Don't your receivers have a b.f.o. for c.w. to copy my s.s.b.? Would like to hear from some of you on Sundays just as soon as the news finishes.

The local Club had their yearly Picnic last Sunday and up to the present no news of how it went. Never take on shift work—every day is the same. Claude 4UX blew in yesterday; came up for the week-end specials and left Jess at home. How mean can you get? After I had got the eats ready for afternoon tea. 73, 4RW.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division for Sept. was held as usual in the clubrooms to a little below average attendance, in fact for the first time of late there was seating for everybody. The guest speaker for the night was Mr. G. Taylor (5ZCQ), who discussed "Civil Defence," and a number of those who stayed home in the mistaken belief that such a subject would have no appeal to them, did not realise just what they would miss. Once again our worthy President, John 5JC, with his usual touch of Solomon wisdom, decided in view of the fact that there would be very little business to transact, to hold the business side of the meeting first and get it quickly out of the way. However, this time his Solomon act fell down badly because the members felt a bit talkative and burbled their way through the night until their vocal apparatus gave out, and after George 5RX had distributed the QSL cards, and short "Smoko" was partaken, the stage was set for Geoff to take over.

Speaking personally, and I feel also for quite a number of those present, I did not feel that his subject, "Civil Defence," would have much appeal for me, and that is where the second Solomon act fell down for the night, because I can say without hesitation that his talk will rank with any previous one for commonsense, interest, and a sensible approach to something that all of us should have woke up to long ago. Apparently Geoff was a wake-up to the fact that a fair number of his audience would be lukewarm on his proposed subject, because he tackled it from a semi-humourous angle to begin with, slowly dropping this approach as he went on, finishing with a smashing climax, leaving no doubt in the minds of his now interested and somewhat shocked listeners that his subject was really important. Most of the talk was illustrated by figures on the blackboard with a couple of maps thrown in for good measure. I again say without hesitation that Geoff is to be congratulated for the splendid job he did, this fact being amply demonstrated by the number of intelligent questions asked at his conclusion. The vote of thanks, moved by John 5KX, was enthusiastically received by the members present and should have been a good indication to Geoff as to how well his lecture had been received.

A good batch of visitors were present, and among those noticed were Rupe 7RM (ex-5RM), Bob 5BG, John 5ZGT, who incidentally, is the harmonic of Clem 5GL, bit big for a harmonic I would be the first to admit, and there was also a fine strapping example of a VK4 in Doug 9DT, but in view of the fact that he kept looking sideways at me, I am forced to the unfortunate conclusion that someone had been blowing down his ear!! All in all, a good time was had by all, and the evening closed at the witching hour of 11.15 p.m.

Rupe 7RM, (ex-5RM) was a welcome visitor to the general meeting this month. Everyone who renewed their acquaintance with him commented on how well he is looking, and also how well he is carrying on the battle with Father Time. He looks twenty years younger than he really is; no kidding. Gilbert 5GX was conspicuous by his absence from the meeting, and I believe he has been spending a little time in hospital with some repairs to his foot. Hope all is well now, OM. I missed the twinkle in your eye when I usually say "Good evening, Gil," I mean, "Gilbert!"

Leith 5LG thoroughly enjoyed himself at the meeting, especially during the business section. He brought up the matter of giving the Z boys an opportunity of participating a little easier in the R.D. Contest, and was overjoyed when it created quite a lot of discussion. Not that anyone was against this suggestion, but a number of side issues were brought in and Leith had the time of his life muttering into his beard and glaring at anybody who attempted to introduce the topic of c.w. versus phone into the matter.

Funny how one bumps into little interesting sidelights concerning fellow Amateurs in the most unexpected places. My wife was at the dressmaker's the other day, and arising from nothing, the dressmaker let the cat out of the bag that her sister used to accompany Jim 5JK on the piano. My wife told me of this and immediately I got my nose on the trail and what do you think Jim used to play? The clarionet. What a fox he turned out to be, a Jimmy Dorsey in our midst and hiding his light under the proverbial bushel. Tut-tut, toot-toot and a couple of semi-quavers.

Jack 5LR has been home from work for the past eight weeks battling firstly with some bronchial trouble and then down with the "wog". At the time of writing he is still not the best, but is slowly on the improve. Roy 5DA—"Buck to you—paid Jack a visit and appears to be sparking on all six, or is it eight? Like a lot of us, he has woke up that providing we remember our age, all will be well, even though we do get a reminder now and again.

Last month I referred to the "Like New Mixer Circuit" in the June issue, and it is remarkable how many of the boys at the meeting went out of their way to let me know that they agreed with all I said. Once again may I compliment the "Mag" on the reprint, and may I also ask if they have anything along the lines of an oscillator using a twin triode which could feed into the said mixer. If the Publications Committee desire it, I will forward my request accompanied with the 100000000000 signatures of request!

The position of the official station 5WI has altered somewhat these days. 7 Mc. has been the regular listening band for the session for many, many years, but these days this band is almost out for the session and 3.5 Mc. is giving by far the best results. Which leads me to say that the boys who are handling the various re-broadcasts deserve a pat on the back for the good work they are doing, even if nobody gets round to doing the pat!

Fred 5MA recently spent a few days in the Berri Hospital and was so delighted with the treatment he received that he donated his appendix to the said hospital; hope all is well now, Fred. Quite a gathering at the recent wedding of Hughie's (5BC) daughter Margo to Dale 5VV at Renmark, so much so that someone was prompted to ask is it a Ham Radio gathering? Our congrats to the happy couple, and I feel that I should give my well known

CHOOSE THE BEST—IT COSTS NO MORE

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maritial advice to Dale at this juncture, "DX before Dishes". Get the message? Hughie 5BC has been away for a few days holiday, but so far my spy cannot give me any information as to the destination.

Tom 5TL, the Mario Lanza of the Murray districts, once again raised his melodious voice in the local Eisteddfod, as a member of the Adult Education Choir, and the visiting adjudicator saw fit to award him first prize. The fact that Tom glared a couple of times at the said adjudicator had nothing to do with it, that's how he looks when he hits upper C, or is it Q?

Veiled suggestions have been leaking through to me of a gathering of the clan at Crystal Brook on Saturday, 16th Sept. I think I will get in touch with a certain gentleman whom I think would be a certainty to have attended, and I might have a good story to dig up. If I get it, I will certainly pass it on further down in this column, and if I don't get it from him, I will still pass it on, with a little of my well-known imagination thrown in for good measure. That should do the trick!!

The VK5 Divisional general meetings have run a somewhat set course for more years than I care to remember. So many lectures, so many buy and sells, a couple of this and a couple of that, and all in all, the programme organisers, or organiser, is to be complimented on his job. However, it is being felt among the members in increasing numbers that at least a couple of meetings a year should be given to just a get-together sort of a night. Perhaps a little business or so and then throw the meeting over to the audience and let them move around and mix together, have a rag-chew and get to know each other better. I think the idea has a lot to recommend it, especially from the viewpoint of a shy and modest person like myself, who attends the meetings, sits in the corner and never open my mouth, and therefore never get to know anybody. Of course this idea means nothing to a pushing type like Pansy 5PS who as soon as he enters the room starts a couple of arguments, butts in and talks to anybody, shy or otherwise, and seems to think that the meeting has been called solely for his benefit. I wouldn't like to be cast in his mould, but I do think the idea has merit, and apparently so do quite a number of the members, judging by their remarks now and again. By the way, what is the secret of the charm and debonair attitude of that Pansy? Don't answer that!!

Stuart 5MS now has his s.s.b. tx working on 80 and 40 mx and certainly has a mighty signal on the few times that I have heard him here. Claude 5CH, like Leo 5GJ, is in the land of the missing at the moment of writing, although he has been seen driving along in his automobobble at times. All we can say of him is that he looks extremely fit and well. Col 5CJ can still be heard on the lunchtime session on 7 Mc. and occasionally on 80 mx, but is apparently waiting for the summer openings on the v.h.f's. What am I saying? Heresy!

Talking of the v.h.f's., and by rights I should not be, being somewhat of a square and a follower of the d.c. bands, I notice that the Z boys down in the S.E., Garry 5ZGR, Les 5ZLS, and Dale 5ZER, are much more active these days now that Barry 5ZDI is active at Penola on 6 and 2 mx. This means that they get a good chance to check their gear on a signal that is not local. The S.E. gang have three starters for the Oct. A.O.C.P. exam., and although it will be finished ere these notes are read, we still wish them the best of luck.

With a great deal of chortling and several coarse asides from those present at the general meeting, our President, may his fowls all keel over, read a large QSL card, addressed to me reputedly from the top of VK4, which contained among other libels, a report on my signal. Apparently it was very amusing, judging by the mirth displayed by all, but methinks that a certain wild man from Borneo, or should it be Norfolk Island, knew more about it than he should.

Have not heard or seen Les 5AX for some time now, but if this should meet his eye I received a letter from a VK3 who is noted for his generosity toward short wave listeners, who said to tell Les that he should wipe the printer's ink from his hands and also from that s.s.b. stuff, so that the said VK3 can copy him. Apparently I am not alone in my regard for the duck-talk.

Dave 5DS is in the middle of tower erecting, a 30 ft. edition, and is busy resisting the efforts of the Northern Net to talk him into putting a 6 mx antenna right on top. Snow 5NW and Bert 5BB are playing around with 2 mx, but as this is not my province I must say no more, if I do I risk being tackled by the v.h.f. scribe. Ses 5GP has been busy paving around the QTH, but my informant tells me that judging by the time it took him, he has been paving the streets of Nairne as well. I think he only meant the main street.

Luke 5LL, accompanied by the XYL, is off to VK7 in the near future, about the middle of November, and plans to spend a couple of weeks in the apple isle. He sure gets around. Tom 5TL seen around Adelaide this week and appeared to be favouring a leg. He had a decided limp, and it appears that he stood on a piece of wood which had a nail protruding, and need I say any more?

Dave 5DS and Luke 5LL recently decided to pay a visit to Crystal Brook and meet some of the local boys. The idea was tossed around in the ether, and snowballed to such an extent that quite a large party of the boys, both city and country, descended on Bowman Park, Crystal Brook, and spent a very enjoyable get-together to the mutual satisfaction of all. Among those prsent were Dave 5DS, Luke 5LL, Pete 5FM, John 5ZZ, Launce ("Pop" to you) 5LD, The Admiral 5ZAH, all from the city; and from the country areas, came Darcy 5RJ from Kadina, Austin 5WO from Laura, Ron 5AP from Port Augusta, Ern 5EN, Brian 5CO, 5EQ and John Zubrinich who is awaiting his call sign, from Port Pirie; Brian 5ZBI from Maitland, 5YA from Terowie, and last but not least, 5ZMK from Mallala.

Bert 5BB and Snow 5NW, two of the local boys made all the arrangements for barbecues, hot water, etc., etc., to say nothing of arranging a miniature sports meeting and providing the prizes. Len ex-5VM, who is a printer up that way, printed a tag for all present, about the size of a newspaper, thus making it easy for everybody to know everybody else. "Eunie" (XYL of Pete) organised a ladies' tour of Bowman Park, pointing out the spots of interest, and giving any explanations of the surrounding highlights. It was unanimously agreed that a splendid time was had by all and the thanks of all present go to the organisers.

I cannot help but wonder just how such a good time can be organised by a few keen followers of Amateur Radio and yet for months and months the VK5 Division has been kicking around the idea of organising a Picnic along the same lines. There must be an answer to this one, but what is it?

Incidentally, my spy told me that "Zuyder Zee" was also among those present at the Picnic, but did not tell me just who that was. At great expense, and at the cost of a couple of headaches, I finally am convinced that he meant Glen 5ZEE. Am I right? If not I give up in severe pain.

Carl 5SS is off for the long week-end (don't ask me what he does with his birds, or I might tell you) to Cowell, and will be portable using Luke's Type 3, Mark II. Wouldn't surprise me if "Skipper's" voice was heard at times!

I usually wait for the "Mag" to reach me, check up on the insults, and then use this last paragraph as a means of retaliation. However, I am over my limit of words already, and with one insult from VK3, two from VK4, a dubious compliment from VK6, and a couple of hints from other quarters to answer, space has caught up with me. I can save them up! 73, de 5PS, PanSy to you.

ELIZABETH AMATEUR RADIO CLUB

At the mid Sept. meeting 5PE gave a lecture on map reading. Clive spoke of the importance of this aspect in any emergency undertaking, and explained the finer points. This was followed by practical exercises. It was surprising how many mistakes and hesitations were made by so many intelligent people in so short a time!

Angus 5DE gave a lecture at the Oct. meeting on transistor application in a piece of commercially made gear. He has been almost totally engaged on working on this equipment for the last year or so, and so his lecture was most authentic, and lead to many questions.

As to the members' doings: 5DY is building a new power supply for his sideband rig. Cyril has been working a lot of DX on 20 using a ground plane antenna. 5PE is in the throes of house shifting. 5DT is now active, using a pair of 807s with 60w. input. 5TM says he is "clowning around" on 6 mx. He finds 1.8 Mc. very lonely. 5QL is still getting his s.s.b. rig to go. 5DI should be on by Xmas —that's old 3BL.

5ZBR and 5ZMK were listening carefully for the Mt. Gambier gang "on location" in the Grampians, but no results are known. 5ZHJ has just completed construction of a six el. beam for six, and hopes to have it 40 ft. up in the air soon. He is building a modulator using zero bias 6DQ5s. 5WV gives slow Morse practice to various lads on 6 mx almost every evening. 5DE is to be congratulated on the arrival of a baby daughter. 5FY is undergoing a drastic re-building programme. 5AX mostly mobile. 5NO/5NQ on the air again QRP from Gawler. 73, 5NO.

WESTERN AUSTRALIA

Well, don't say I didn't tell you! The Water Carnival was held at Moora on Oct. 10, and a great time was had by all Hams who attended. Yes! All three of them. Lance 6LR, complete with 122 set floating around the lake; Ray 6WU, also with a 122 set; and last and foremost, Ian 6CL, with his 150w. home station with alternator attached. Also attached was a 40 mx dipole which served all bands. This didn't stop them working Malaya, Philippines, Japan and Nth. Rhodesia, not to mention numerous VKs; all this on 21 Mc. with locals on 40 mx. V.h.f. gear to hand as well, with experiments being conducted on 2 and 6 mx. Oh! I forgot to mention, there were about 200 cars there with lots of people. But they were all interested in the Water Carnival events being held on Lake Dalaroo at Moora, so we don't count them.

Reminiscences of Katanning's early days a couple of months ago brought nostalgic memories to Alec 6AS, who was in the area in those days. Alec was one of those who drifted away from the place when the big blue started in '39, so he didn't get his ticket until later. Incidentally, Alec has a pretty fair fist on the brass, so there's a possibility we may hear him on the Morse sessions soon. Alec also suggests that Katanning would be a good place to hold a local convention. Now, there's an idea to work on!

Which reminds me, too, all mod. cons. at the Katanning shacks, central heating and so on, and at least one of the "X" group are on the air on 80 mx nightly. However, "The Disease" is getting into some of the local types and Robbie 6XR is pawing over his old junk with view to trading it for new s.s.b. parts. Keep at 'em Robbie, don't accept the first price they quote you; in fact if you did, you might just as well give it away.

There are other sorts of wogs about too, and Frank 6XF is just recovering from a serious attack of golf-on-the-green. This lasted the full term, but he is recovering now and should be well enough soon to push the TR switch and give with the r.f.

Getting the r.f. into the ether is always a problem, of course, particularly when you keep changing your car which has the mobile gear in it. I mean, after all, when your car reaches the stage of needing polishing! Well! It's just gotta go! That's all. But the removal and re-installation of a mobile rig is not so easy, for it requires not only positive thinking, but positive action as well. Eh! Who's all this about? Herb 6XO, is our man and the best of luck to you, Herb.

Tripping about in the car leads me to Clarrie 6XG, who has been "living it up" with frequent trips to Perth. It appears that Clarrie considers that a number of the one-legged bandits in the city should be branded 6XG and start paying a dividend to the new owner, instead of the City Council. This could well be true, for what with supporting parking meters during the day and partaking of rich and exotic Chinese foods followed by the thearta (that's what you and I call theatre) at night, Clarrie will need to strike oil to keep it up. Try installing a country t.v. station, Clarrie, that should pay well.

Whilst on this high falutin' level, our esteemed President, Ron 6KW, who departed on a luxury cruise to Japan and all that jazz, appears to have successfully dodged the naval operations around VK9 and passed onward to JA land. Judging by the Tokyo Tower pictured in the local rag recently, Ron should just about be able to see Carnarvon from the top. Trust both you and XYL are enjoying the trip Ron.

At last Wal 6AG has decided that he has done enough in one section anyway. As from next March, Wal has decided that someone else can help with the job of broadcast officer. Of course, this isn't the only job that Wal does, so he won't be entirely without a job. Incidentally, it is gratifying to know that when this matter was made known through the general meeting, a number of offers were received. Keep it up, chaps, this shows a healthy interest in what the Division and the Institute as a whole is doing for us all.

Have you ever been told a thing can't be done, and then gone ahead and done it? Gives you a kick along doesn't it. What the experts call ego boosting. This happened on the v.h.f. side recently when the V.h.f. Group were responsible for providing radio coverage for the car trials. "You won't get a signal in or out" says the boys in khaki. "We've made a survey, and it won't work," says the steak and kidney people. But it did, and highly successful it was too. Much jubillation amongst the mobileers and fixed stations alike. Troubles? Well, a wire came unsoldered in one set. Congratulations all round. As a matter of

fact, special congratulations came from the P.M.G. Depart's Radio Branch, complimenting everybody on the high standard of operating and the organisation in general.

After having successfully confused everybody about the date for the 40 mx scramble, when three different dates were quoted in the Bulletin, it was decided to postpone it for one week. Conditions were patchy and consequently the number of contacts not as high as they should have been. Winners to be announced at the Xmas "do".

Something seems to have happened to my spy organisation during this month. I think it's something to do with the fact that I forgot to ask them for a report until it was too late. I shall have to be careful otherwise my network will be blown spy hi! 73, 6LS.

— . . . —

TASMANIA

Alan 7MY has sold a considerable part of his property at Cremorne and, at least temporarily, is a man of leisure. You certainly deserve a rest after working so hard for such a long time, Alan. We hope to hear you more often on the bands now, too. Pat 7GV spent a holiday recently in Melbourne, and returned home with an AR7 rx, and many tales of equipment he saw but did not buy, for lack of money, so he says. Jack 7JB is again heard on the bands, particularly 80 mx. Apparently the lure of t.v. has lost some of its grip over Jack, as it has over several other southern members, with the result that excellent round-ups are to be found on 80 mx almost every night.

The club room fund-raising committee added £11/8/8 to the fund as a result of the function held on 29th Sept. This result was most surprising in view of the rather disappointing number attending the function. However, it is true to say that those at the function thoroughly enjoyed themselves.

John 7JF is in the course of building up a 150w. rig, and I understand that Den 7DK is rather envious of John as a result, and that Den fears that John will reach the D.X.C.C. first.

The Jamboree-on-the-Air was held on 20th and 21st October. Eighteen VK7 stations at least took part. I urge you to forward a copy of your Jamboree log to the Secretary of the Boy Scouts' Association in Hobart so that a full record of participation can be gained. The boys taking part at your station will also receive a participation certificate, and QSL cards will be sent to stations worked by your station.

At the October Divisional meeting, we were very acceptably addressed by Mr. John Greenhill, of the Physics Department of the University on telemetry from balloons. Great interest was shown in the transmitting gear exhibited and many were the envious eyes turned on the mass of transistors to be found therein. The excellence of the address could be gauged by the attention paid by all present to the lecturer.

Michael 7ZAV has recently gained his private pilot's licence flying with the aero club from Cambridge airport. I wonder if we can now expect some airborn v.h.f. activity? Den 7DK is gradually evolving a mobile tx of considerable merit, and his success in designing and building centre loaded whips has been amply demonstrated by his working 2AWZ, also mobile, near Newcastle.

Remember the tx hunt on 11th Nov. Be in it and have fun, as well as making the function all the more worthwhile for the others taking part. Charlie 7KS is in the process of building up a mobile rig, with a 2E26 in the final. Terry 7CT has been playing around with improving the percentage of modulation in his mobile rig and results have been encouraging.

The v.h.f. boys have decided upon a standard calling frequency of 144.1 Mc. and crystals to hit this frequency are being obtained in bulk to cut down the price for same individually.

It is hoped to hold a Ham Fest on the week-end of Saturday, 24th Nov., in the neighbourhood of Campbelltown. This site has been chosen as a compromise, to suit participants from all three zones, so we hope that you will attend, together with your XYL and family and make this venture an outstanding success. Details will be fully set out in the Divisional Bulletin. 73, 7ZZ.

NORTHERN ZONE

For the first time in several years a Zone meeting was held at a place other than a member's home and our Sept. meeting, in our new meeting rooms, proved beyond all doubt that no drop off in attendance will take place through this change.

As yet no chairs have been provided and members arrived carrying seats of all shapes, sizes and styles. One member was noted perched on the window sill and another had to sit on the floor. Evidently one of our office-bearers expected an over flow and left a chair outside the front door. A later check established the fact that it was an unnecessary precaution. There wasn't an overflow—in fact there wasn't even a chair.

After the business of the evening was concluded 7DK gave an interesting lecture on "Remote Control."

The Jamboree-on-the-Air was also discussed and it is hoped that a station will have been established at a camp site.

A monster Field Day is also being considered and this could be a huge success, however more about this later.

It is understood that four associates will be taking the A.O.C.P. examination in January and as all are keen on 144 Mc., increased activity should be evident in the Zone before the next 144 Mc. DX season closes.

The November meeting will be held in the new meeting room, 73 George St., Launceston, on Friday, 9th November. So keep this night free. 73, 7LZ.

NORTH WESTERN ZONE

The meeting on Tuesday night was not well attended, Ulverstone not being represented at all. It was suggested that the meetings could possibly be held in private homes, both to stimulate interest in Ham doings and to reduce expenditure, as our funds are low.

Some concern has been felt at the way in which our Zone, and to some extent the Northern Zone, seems to have been ignored by the Southern Zone. North and North-Western operators experience great difficulty in contacting the South, even during the round-up after the broadcast (when we can hear it). We hear them but cannot contact them! More co-operation in general is needed, the proposed Field Day at Campbelltown may be a step in the right direction.

I hope Dennis 7DR has his house upright again, and Max 7MX has narrowed his bandwidth. Steam your rig up Bob, because I'm looking for you on 144 Mc. 73, 7ZBH.

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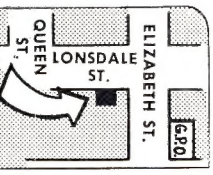
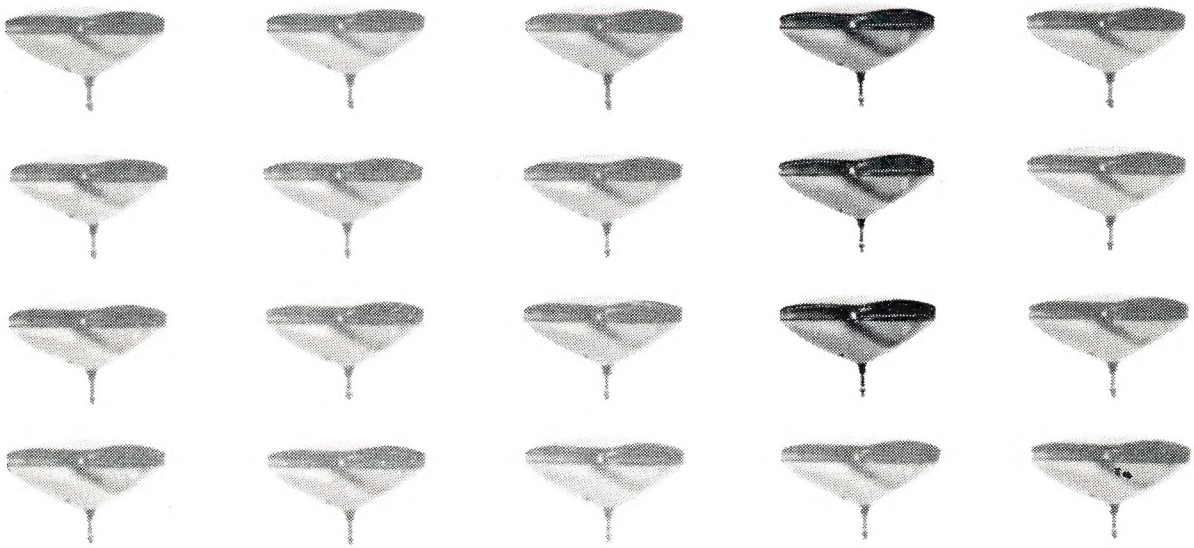


- TRADE ALSO SUPPLIED
- OPEN SAT. MORNING

Please include postage or freight with all orders

TWENTY NOW REPLACED BY THREE



3 Super Radiotron picture tubes now replace 20 popular types

(Over 80% of total tube replacements)

By stocking Super Radiotron, TV repair servicemen gain the following benefits:

Minimum overhead; storage space savings; ease of ordering; lower depreciation; smaller losses in case of fire or theft.

SUPER RADIOTRON TYPE 17CGP4 REPLACES 9 POPULAR TYPES

17BP4	17HP4	AW 43-20
17BP4B	17HP4B	MW 43-60
17CGP4	A43-64	MW 43-69

SUPER RADIOTRON TYPE 21CBP4A REPLACES 7 POPULAR TYPES

21ALP4	21ALP4B	AW 53-80
21ALP4A	21ATP4	MW 53-80
	21CBP4A	

SUPER RADIOTRON TYPE 23MP4 REPLACES 4 POPULAR TYPES

23MP4	23WP4	AW 59-90
	AW 59-30	

For additional information concerning these and other Super Radiotron types consult the new picture tube interchangeability wall chart, publication No. TV-3. This AWV chart contains characteristics and replacements for 57 tube types common to the Australian market.

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